A REVIEW OF INNOVATIVE FINANCING APPROACHES FOR COMMUNITY WATER INFRASTRUCTURE PROJECTS—PART II

(112–76)

HEARING

BEFORE THE

SUBCOMMITTEE ON
WATER RESOURCES AND ENVIRONMENT

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

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[2] This report has been excerpted for this publication. It can be found in its entirety online at http://www.gao.gov/assets/300/291771.pdf.

U.S. House of Representatives
Committee on Transportation and Infrastructure

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March 16, 2012

MEMORANDUM

TO: Members of the Subcommittee on Water Resources & Environment

FROM: Bob Gibbs
Subcommittee Chairman

RE: Hearing on "A Review of Innovative Financing Approaches for Community Water Infrastructure Projects (Part II)"

PURPOSE OF HEARING

The Water Resources and Environment Subcommittee will hold the second of a two-part hearing, in Room 2167 of the Rayburn House Office Building, on reviewing innovative approaches for financing community water infrastructure projects. The second part of the hearing will be held on **Wednesday, March 21, 2012, at 10:00 a.m.** (The first part of the hearing was held on Tuesday, February 28, 2012, at 10:00 a.m.)

The Subcommittee will receive testimony from a city mayor, a municipal water utility, a State infrastructure financing authority, experts in municipal and private capital project finance, associations of water quality professionals and contractors, a private foundation, and a representative of State and local employees on potential innovative financing tools, including public or private funding and investment mechanisms, to better enable local communities to finance wastewater (and drinking water) facilities mandated by State and Federal environmental laws and regulations.

The hearing also will look at a draft legislative proposal that would be entitled the "Water Infrastructure Finance and Innovation Act" (WIFIA). WIFIA would establish additional financing mechanisms to supplement the State revolving loan fund programs in addressing the means for funding water infrastructure projects. This WIFIA proposal is in part modeled after the Transportation Infrastructure Finance and Innovation Act (TIFIA) for surface transportation projects and other credit programs governed by the Federal Credit Reform Act.

JURISDICTION

The Transportation & Infrastructure (T&I) Committee has jurisdiction, under the Clean Water Act ("CWA"), over water quality and wastewater infrastructure programs administered by the U.S. Environmental Protection Agency (EPA). Title III of the CWA places a number of treatment and other regulatory requirements on municipalities' wastewater treatment works. Title IV of the CWA requires permits, under the National Pollutant Discharge Elimination System (NPDES) permit program, for the discharge of pollutants from wastewater treatment works and certain municipal storm sewer systems. Title VI of the Clean Water Act provides for the establishment and capitalization of Clean Water State Revolving Loan Funds (SRFs) to aid in funding the construction of wastewater treatment works and other wastewater infrastructure around our nation.

The T&I Committee also has jurisdiction over water supply infrastructure. The Committee does not have jurisdiction over Safe Drinking Water Act regulatory requirements. Safe Drinking Water Act regulations fall under the purview of the Energy & Commerce Committee as public health regulations. In addition, the Energy & Commerce Committee has jurisdiction over assistance, including infrastructure assistance, which is for the purpose of meeting the regulatory requirements of the Safe Drinking Water Act.

BACKGROUND

It is widely accepted that clean drinking water and public wastewater services are necessary priorities to sustain public health, support our economy, and protect the environment. Significant amounts of public resources have been devoted to water infrastructure in American communities over the last 40 years to meet these priorities. An impressive inventory of physical assets has been developed over the course of this period.

The nation's wastewater infrastructure includes 16,000 publicly owned wastewater treatment plants, 100,000 major pumping stations, 600,000 miles of sanitary sewers, and 200,000 miles of storm sewers. Our nation's community drinking water infrastructure includes a similarly impressive array of facilities.

Since 1972, with the enactment of the Clean Water Act, Federal, State, and local investment in our national wastewater infrastructure has amounted to well over $250 billion. This investment has provided significant environmental, public health, and economic benefits to the nation. The nation's farmers, fishermen, manufacturers, and tourism industries rely on clean water to carry out activities that contribute well over $300 billion to our economy each year.

However, the nation's ability to provide clean and safe water is being challenged, as existing wastewater infrastructure is aging, deteriorating, and in need of repair, replacement, and upgrading. Old and deteriorated infrastructure often leak, have blockages, and fail to adequately treat pollutants in wastewater, thereby creating water pollution problems.

REGULATORY PRESSURES AND INADEQUATE INFRASTRUCTURE ISSUES FACING OUR COMMUNITIES

The needs of municipalities to address water and wastewater infrastructure are substantial. According to studies by EPA, the Congressional Budget Office, and the Water Infrastructure Network, the cost of addressing our nation's clean water infrastructure needs over the next 20 years could exceed $400 billion, roughly twice the current level of investment by all levels of government. The needs for drinking water infrastructure drive this figure even higher.

The needs are especially urgent for many areas trying to remedy the problem of combined sewer overflows (CSOs) and sanitary sewer overflows (SSOs), often associated with wet weather conditions, and for communities lacking sufficient independent financing ability. In recent years, EPA (and activist groups, through citizens suits) has stepped up enforcement actions against many municipalities in an effort to force them to eliminate their CSOs and SSOs. EPA's national enforcement initiative has focused on the reduction of these overflows by winning commitments from municipalities to implement extremely expensive infrastructure upgrades to prevent these problems in the future.

These enforcement actions have resulted in many larger cities and smaller municipalities entering into enforcement settlements, by signing consent agreements with EPA (and/or activist groups) to implement enforceable plans to eliminate their CSOs and SSOs. Many of these settlements are costly to implement, especially in the face of dwindling EPA infrastructure funds.

The projected total cost to larger municipalities of implementing the terms of each of these settlements could end up being as much as $1-5 billion per city, or even more in some instances. There are well over 700 communities, located in 31 States and the District of Columbia, with combined sewer systems and CSO issues potentially facing these sorts of costs. Many more communities have SSO issues. EPA estimates that there are at least 23-75 thousand SSOs per year (not including sewage backups into buildings), amounting to an estimated three to ten billion gallons per year of untreated releases.

In recent years, other regulatory issues have also become national priorities, which are placing further demands for resources on municipalities' utilities. For example, while the nation's wastewater utilities have already removed the vast majority of conventional pollutants from municipal wastewater, looking forward, they face significantly higher costs to remove the next increment plus control pollutants from urban runoff.

EPA has initiated a national rulemaking to establish a potentially far-reaching program to regulate stormwater discharges from newly developed and redeveloped sites and add to or make other regulatory requirements more stringent under its stormwater program. This includes possibly expanding the scope of the municipal separate storm sewer systems (MS4) regulatory program, establishing and implementing a municipal program to regulate stormwater discharges from existing development, imposing specific requirements for transportation facilities, and establishing and implementing stormwater regulations specific to the Chesapeake Bay watershed. This stormwater rulemaking, if promulgated, could cost communities billions of

additional dollars in regulatory compliance costs. This would thereby impose substantial additional regulatory and economic burdens on municipalities to comply, with questionable benefits.

In addition, EPA has begun zealously pressing the States and local governments to adopt a new "framework" for managing nutrients pollution, including crafting numerical nutrients criteria, setting strict numerical regulatory requirements, including numerical standards and total maximum daily load (TMDL) load reduction goals for pollutant sources, and adopting stringent numerical nutrient standards and stringent effluent limits for nutrients in National Pollutant Discharge Elimination System (NPDES) permits for municipal and other dischargers of nutrients. Stringent effluent limits for nutrients in NPDES permits could mean that many municipalities would have to install and operate, at great expense, nutrient treatment and removal technologies at their wastewater treatment plants. These requirements will add an additional layer of regulatory requirements and economic burdens that our communities will have to deal with.

Further, in many cities and towns, water infrastructure has been in place for many decades. Quite often, particularly in the larger cities, components of these systems (such as the water mains) are more than a century old. The life expectancies for these systems are being approached or exceeded in many cities and towns. As the water infrastructure outlives its useful life, it can corrode and deteriorate, resulting in an epidemic of water leakage, burst water mains, unreliable pumps and collection equipment, and aging treatment plants that fail to remove important contaminants. With age and increased demands due to population growth, drinking water infrastructure problems in many cities are growing.

Moreover, many communities face increasing regulatory requirements and more stringent standards under the Safe Drinking Water Act for their public drinking water systems. In addition, protection of critical water and wastewater infrastructure has become important to homeland security.

A large portion of these Federal and State regulatory mandates are going unfunded by the Federal and State governments. Rather, local governments are being expected to pay for more and more of the costs of these mandates, with the result that local governments have made substantial increases in investments in public water and wastewater infrastructure in recent years and local communities and ratepayers are increasingly getting economically tapped out. For example, Jefferson County, Alabama (Alabama's most-populous county and the home of Birmingham) recently declared the largest municipal bankruptcy in U.S. history, in part as a result of a multi-billion dollar sewer project. Today, local government provides the majority of the capital required to finance water infrastructure investments through loans, grants, bonds, and user fees.

COMMUNITIES' CONCERNS

As a result of many communities becoming financially squeezed, representatives of local government are increasingly voicing concerns over EPA and State policies and unfunded

mandates, including the cumulative impacts of multiple regulatory requirements being imposed on them.

Municipalities are very concerned about the impacts the unfunded Federal mandates treadmill has on local government ability to meet compliance obligations, and have been urging EPA and State officials to limit the massive costs of complying with agency wastewater and stormwater requirements. This is especially true given municipalities' dwindling revenues due to the economic downturn.

The Water Resources & Environment Subcommittee held a hearing in December 2011 to explore these concerns and a proposed integrated planning and permitting regulatory prioritization effort that EPA has proposed under the Clean Water Act to help reduce the financial burdens communities are facing.

Municipal officials also are urging the Federal government to increase support to the States and local governments to help pay for the unfunded Federal mandates.

TRADITIONAL MEANS OF FINANCING WASTEWATER INFRASTRUCTURE NEEDS

From 1972 to 1990, the Federal government provided assistance through Clean Water Act project grants for wastewater treatment capital improvements. More than $60 billion in direct grants were provided to communities.

Since 1987, most of the Federal government's assistance has been in the form of capitalizing Clean Water SRFs. In this program, Federal money appropriated to EPA is distributed to the States through Federal capitalization grants. This assistance is funded through general taxpayer revenues. States must match the Federal SRF funding by 20 percent. The Federal government has provided approximately $32 billion in SRF capitalization grants to date.

Each State's CWSRF operates much like a specialized infrastructure bank, by making loans for wastewater infrastructure and nonpoint source projects, refinancing existing local debt, and providing guarantees of or bond insurance for local debt. Many State financing authorities have been using innovative debt financing techniques in order to help make adequate and economical funding for water infrastructure available and accessible.

More than half the States leverage their SRF funds by using those funds to provide the collateral for the issuance of State bonds, doubling the amount of such funds available for infrastructure investments. Some States have also established special bond authorities, trust funds, and/or infrastructure banks to aid in the delivery of financing to small communities.

Communities are investing well over $10 billion a year in wastewater infrastructure. In most cases, the capital to make that investment is borrowed. In recent years, communities borrowed approximately $5.3 billion per year in below-market loans from the Clean Water SRFs. CWSRFs have funded over $85 billion in low-interest loans for clean water projects to date. Communities have raised the rest of the capital from other sources, primarily from banks

and issuing municipal bonds. Communities use revenues collected from rate-payers to fund both operation and maintenance and repayment of the debt they have incurred. Very few communities have sufficient capital resources to fund infrastructure improvements without incurring debt.

Small, rural, and disadvantaged communities face a shrinking pool of financing resources, and are especially at a disadvantage in financing water and wastewater infrastructure. Rural community assistance programs, such as those sponsored through the U.S. Department of Agriculture's Water and Environmental Program in the Rural Utilities Service, provide some assistance (including direct loans, grants, and loan guarantees) for projects in unincorporated rural areas and small towns to develop and rehabilitate water and waste facilities, but this amount of assistance does not meet the needs of these small, rural, and disadvantaged communities.

Several States have taken steps to supplement funding for water infrastructure and other clean water projects. A number of States have approved special issuances of bonds to assist local communities. In 2004, the State of Maryland enacted legislation that established the Chesapeake and Atlantic Coastal Bays Restoration Fund, supported by a monthly fee on sewer bills and an equivalent annual fee on septic system owners. The Fund is being used to upgrade wastewater treatment plants, repair failing septic tanks, and fund a cover crop program to reduce nitrogen and phosphorus loadings to the Chesapeake Bay and coastal bays.

Despite these substantial Federal and State investments in infrastructure, still more investment is needed to address all of the demands that communities face. As a result, many are seeking new ways to increase funding for water infrastructure.

OTHER POTENTIAL APPROACHES FOR ADDRESSING WATER INFRASTRUCTURE FINANCING NEEDS

Clean Water Trust Fund

Some are advocating cost savings and improved efficiencies, along with local rate increases. Others are seeking increased Federal and State support for the SRFs or for clean water grants. Still others are advocating the creation of a national clean water trust fund as a means for financing wastewater infrastructure needs.

Trust fund advocates argue that a national clean water trust fund would provide a new revenue stream, would be a more stable and secure funding source, would help generate the revenues needed to close the funding gap, could enhance State and local revenue-generating capacity by requiring a State matching component or enhancing the viability of rate increases at the local level, and would ensure that costs are borne equitably by those that benefit from clean water. They point to the highway and aviation trust funds, which provide billions in dedicated funding for roads and airports by collecting fees from highway and airport users, and take the position that the nation's water infrastructure demands a similar dedicated revenue stream.

One of the most complex aspects of moving from the trust fund concept to reality, however, is determining the revenue sources for such a trust fund. Trust fund advocates have

looked at several potential revenue sources, including a fee on water-based recreational products and services, industrial discharges, flushable products, or beverages, a broad clean water restoration fee, as well as a combination of some or all of the foregoing. All options put forth by trust fund advocates are based on the assumption that the beneficiaries of clean water, and/or the pollutant dischargers (other than the wastewater treatment plants themselves), have the primary responsibility for guaranteeing clean water.

However, none of the sectors identified by trust fund advocates as potential funding sources support a fee or tax on their activities. In addition, a true water user fee, which would involve placing a Federal surcharge on water and/or wastewater rates, has little public support.

Improved Asset Management and Sustainable Infrastructure

Communities are feeling considerable pressure to improve the management of their wastewater systems to reduce costs and maintain sustainable systems. Some are also looking at innovative ways of integrating decentralized, distributed, and nonstructural water infrastructure to reduce the need for expensive infrastructure. In addition, financing institutions, associations of water quality professionals, States, and EPA all have been encouraging utilities to improve the management of their infrastructure assets, in order to reduce the demand for new infrastructure.

Moreover, EPA has begun implementing "sustainable infrastructure initiatives" to help communities close the gap through actions and innovations to reduce the demand for infrastructure. Through these initiatives, EPA is promoting better asset management techniques for reducing long-term costs and improving performance and sustainability, promoting water efficiency, promoting full cost pricing of water, expanding watershed approaches, and advocating the use of so-called "green" infrastructure to identify efficient and effective local infrastructure solutions. By properly operating and maintaining infrastructure, and by planning for capital improvements, wastewater utilities can reduce costs and avoid catastrophic infrastructure failures.

However, improved asset management and "sustainable" infrastructure initiatives, alone, will not meet the needs of communities. Increased investment by government, plus the private sector, is needed to close the gap between current spending and projected infrastructure funding needs, even if water and wastewater systems are able to implement cost savings and improved efficiencies. Otherwise, without adequate spending on our nation's water infrastructure, we face the very real risk of losing the environmental gains we have achieved over the last three decades. Our $250 billion-plus investment in wastewater infrastructure is at risk, as is the $300 billion a year in economic activities that rely on clean water.

Private Investment

Private sector capital is another, potentially major source of funding for water and wastewater infrastructure. Municipally owned water and wastewater utilities traditionally have not had much access to private sector investment capital outside the traditional municipal bond market.

However, the financial markets have been "discovering" infrastructure in the past several years, and this is fast becoming a popular asset class that is attracting many billions of dollars in private investment capital. Investors have recognized the huge and growing need for infrastructure investment around the world, in transportation and energy as well as water/wastewater, and are looking for ways to participate in this market. In addition, the recent financial market turmoil, triggered by the global financial crisis and concerns of inflation, has prompted many financial investors to reconsider their long-term investment strategies and explore entirely new categories of investment.

In recent years, there has been a rapid increase in the creation and size of infrastructure investment funds. Tens of billions of dollars have been invested in these funds to date. Managers of these funds are actively looking for deals where they can put this new money to work for their investors. Key targets include transportation, energy, and water/wastewater-related assets.

Investors in these funds are often pension funds (including public pension funds such as State-sponsored teacher and public employee plans), insurance companies, or foundations, which have large amounts of capital to invest and are looking for stable, long-term investment returns that basic infrastructure assets can provide. Many of these funds are looking for opportunities to invest in long-lived tangible assets that generate predictable and stable cash returns that are indexed or hedged against inflation and pose limited risk. Water and wastewater infrastructure projects fit this bill.

Consistent with these objectives, a number of pension and other investment funds are now interested in building a portfolio of investments in wastewater and drinking water facilities and, in some cases, their related distribution and collection systems. Such facilities provide an essential service to residential and commercial end users, for which there is no viable alternative. They generate cash flows secured by an established and diversified customer base of households and businesses, within service areas that are typically characterized by substantial barriers to entry for potential new competing providers of services. Such facilities effectively generate stable, recession-resistant cash flows, with limited relation to other investment allocations of the funds. Properly selected and structured, investments in wastewater and drinking water facilities also can provide a predictable cash flow stream over the long term.

The investments may take the form of purchasing existing utility assets or, through public-private partnerships, the private sector can invest their own capital in new water or wastewater infrastructure, and operate facilities over periods of time to receive a return on their investment. Private investment capital also is available for providing financing to utilities through lending and the purchase of bonds.

Despite the interest of the private sector investing in infrastructure, many potential private investors are finding impediments to private investment capital going into water and wastewater infrastructure in this country. Many experts in municipal and private capital project finance believe the ways the U.S. water and wastewater industry has traditionally been structured and financed gets in the way of private investment.

For example, investment research analysts have observed that the vast majority of water and wastewater infrastructure in the United States is owned by local government entities, including cities, towns, and sometimes regional water or sewer authorities. Only about 15% of the population in the U.S. is served by investor-owned water utilities, and an even smaller proportion (less than 10%) is served by investor-owned wastewater utilities. The industry is highly fragmented, with more than 50,000 utility systems around the country, which are mostly small systems serving only a few thousand people.

In the United States, funding and investment in water and wastewater infrastructure is also fragmented. Investor-owned water utilities fund their infrastructure needs through a combination of equity, which they periodically raise through offerings of stock to investors, and debt, usually a combination of bank debt, bond debt, and sometimes low-cost State or SRF-supported debt. State public utility regulators then approve periodic customer rate increases that pay for these investments, allowing a return on equity and coverage for interest costs and debt repayment.

Municipally owned utilities, on the other hand, typically pay for their infrastructure investments by issuing tax-exempt municipal bond debt. They also may receive some contribution from general tax funds, from State or Federal grant programs, or from the SRF programs, but the majority of funds are raised locally. Increasingly, municipalities are raising customer rates, or user fees, to pay for infrastructure improvements, though some cross-subsidization between water and sewer services and other city services still exists in some municipalities.

Historically, municipal bond financing has worked well for public utilities, but the rising clean water investment needs and unfunded mandates being faced by many communities are now stretching their bond-raising capacity, since they also must fund a wide range of other municipal services, facilities, and needs. Despite its historic stability, some are concerned that the public water and sewer utility sector is facing increasing challenges that may impact credit quality.

As a result of this fragmented industry and investment structure, municipally owned water and wastewater utilities have typically not had access to private sector investment capital outside the municipal bond market. Moreover, private investors typically have been precluded from investing in the municipal water and wastewater market other than through municipal bonds.

However, many experts in municipal and private capital project finance believe that, through some restructuring of the industry and by developing creative project financing mechanisms outside of direct utility asset purchases, we could start to overcome the barriers to bringing private sector capital into the municipal water and wastewater markets. For example, they believe a variety of financing structures utilizing tax-exempt facility bonds, commonly known as private activity bonds (PABs), taxable bonds, and equity funding are possible to help optimize water and wastewater infrastructure project development.

Projects can be structured as public-private partnerships to optimize development, construction, and long term operation, as well as appropriate sharing of risks between the public

and private partners. Highly-regarded private companies active in the water and wastewater market could help facilitate the structuring of long-term public-private partnership arrangements. Increased equity investment and assumption of risk by long term private partners for water and wastewater projects could increase with the use of PABs and could benefit all public and private participants developing projects to meet water and wastewater infrastructure needs.

Private activity bonds, issued by States and municipalities, are used to attract private investment for projects that have some public benefit. The State or municipality issuing the bond must be able to prove that a public benefit derives from the private activity bond in order to qualify for tax-exempt status. A tax-exempt PAB results in reduced financing costs by generating significant interest savings because of the exemption from Federal, and in some State, tax, and promotes projects important to the local community. PABs may be issued for wastewater and drinking water treatment projects involving private interests, but there are strict tax rules that limit the use of PABs.

The most serious limitation on the issuance of tax-exempt PABs is the "unified volume cap," which restricts the amount of PABs that States and localities may issue in any given year. Under the Internal Revenue Tax Code, States and municipalities within the State are subject to a State-wide cap on the volume of PABs that may be issued each year. In 2012, that limit is 95 times the State population, or $284.56 million, whichever is greater (this amount is to be adjusted yearly for inflation). In most States, the vast majority of financing by PABs has gone to other sectors such as housing and education.

Congress has exempted some activities from this volume cap. For example, in the latter 1980s, to avert a crisis of lack of landfill capacity, Congress exempted the construction of solid waste landfills from the PABs volume cap. This resulted in many billions of dollars of PABs being issued to help fund the development of new infrastructure to help solve the disposal crisis.

Wastewater and drinking water projects currently are not exempted from the cap. If wastewater and drinking water infrastructure also were exempted from the PAB volume cap, this could generate considerable additional revenue for this purpose. A municipality could issue tax exempt bonds and then use the bond revenues to partner with a private company to build wastewater or drinking water facilities.

Legislation has been introduced in recent Congresses, including H.R. 1802 in the 112th Congress, which would remove the PABs volume cap for water and wastewater facilities.

"Water Infrastructure Finance and Innovation Act" (WIFIA)

The Subcommittee is looking at a potential financing tool for water and wastewater infrastructure projects that would in part be modeled after the Transportation Infrastructure Finance and Innovation Act (TIFIA) for surface transportation projects and other credit programs governed by the Federal Credit Reform Act. A preliminary draft of legislation, that would be entitled the "Water Infrastructure Finance and Innovation Act" (WIFIA), is attached to this memorandum. WIFIA would establish additional financing mechanisms to supplement existing means for funding water infrastructure projects.

The WIFIA program would provide Federal credit assistance in the form of direct loans and loan guarantees, to finance significant water and wastewater infrastructure projects. WIFIA credit assistance could provide improved access to capital markets, flexible repayment terms, and potentially more favorable interest rates than can be found in private capital markets for similar instruments. WIFIA could help advance qualified, large-scale projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues. Many water and wastewater infrastructure projects would be eligible for assistance under this draft proposal.

The WIFIA program would be governed by the Federal Credit Reform Act of 1990 (FCRA), which would require the U.S. Environmental Protection Agency (the administering agency for the proposed WIFIA program) to establish a capital reserve, or "subsidy cost," to cover expected credit losses before it can provide WIFIA credit assistance. Congress would place limits on the annual subsidy amount available.

The FCRA sets up a system of two budgetary accounts to record the budget information necessary for accrual accounting to work, i.e., program and financing accounts. The Program Account is an on-budget account that receives the appropriation for the subsidy cost, i.e., the "true economic cost that ought to be reflected on the Federal budget." The Financing Account is a non-budgetary account that tracks the financing cash flows, such as loan disbursements, repayments from borrowers, and interest payments. As a non-budgetary account, the Financing Account's cash flows are not included in budget totals and are not part of the deficit calculation.

Hence, under the FCRA, the cash flows associated with a Federal credit program such as WIFIA would be tracked in non-budgetary financing accounts, and these cash flows would not be included in budget totals and would not be part of the Federal deficit calculation.

As each loan is disbursed, the Program Account would outlay the corresponding subsidy cost to the Financing Account. The subsidy cost then would be combined with the non-subsidized portion of the loan and the entire loan amount would be disbursed to borrowers. If the loan performs as expected, borrower repayments would enable the entire amount borrowed from Treasury to be repaid to the Treasury over time with interest. The aggregate performance of loans issued would be expected to enable the Financing Account (and hence, the Treasury) to stay in a break-even or better situation.

Under the FCRA, Congress only would have to appropriate the "subsidy cost" of the WIFIA loans -- essentially, an amount to cover the risk of defaults and the government's cost of funds. The draft bill provides for the appropriation of funds to cover the subsidy cost of the WIFIA credit program, plus the appropriation of funds to cover administrative expenses. The subsidy cost and expenses would be expected to be the only costs reflected in the Federal budget.

The draft WIFIA bill also contains language that would remove the PABs volume cap for water and wastewater facilities.

Attachment

WITNESSES
(March 21, 2012)

Mayor Ron Behm
City of Napoleon, Ohio

Ms. Karen Massey
Director
Missouri Environmental Improvement and Energy Resources Authority
(testifying on behalf of the Council of Infrastructure Financing Authorities)

Mr. David Weihrauch
Water Treatment Plant Manager
City of Oxford, Ohio

Mr. Stephen Howard
Infrastructure Project Finance
Barclays Capital
New York, NY

Mr. David Dornbirer
Vice President
Energy & Water Division
CoBank
Greenwood Village, CO

Mr. Benjamin H. Grumbles
President
Clean Water America Alliance

Mr. Ryan Schmitt
President
Petticoat-Schmitt Civil Contractors, Inc.
Chairman of the Board, NUCA - Representing Utility and Excavation Contractors
(testifying on behalf of NUCA)

Ms. Lynn Broaddus
Director, Environment Program
The Johnson Foundation at Wingspread
Racine, Wisconsin

Mr. Rich Abelson
Director of AFSCME, Council 48
Milwaukee, Wisconsin
(testifying on behalf of the American Federation of State, County, and Municipal Employees)

[DISCUSSION DRAFT]

112TH CONGRESS
2D SESSION

H. R. _____

To provide financing assistance for qualified water infrastructure projects, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

M__. _____ introduced the following bill; which was referred to the Committee on _____

A BILL

To provide financing assistance for qualified water infrastructure projects, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the "Water Infrastructure Finance and Innovation Act of 2012".

(b) TABLE OF CONTENTS.—The table of contents of this Act is as follows:

Sec. 1. Short title; table of contents.
Sec. 2. Findings.

TITLE I—WATER INFRASTRUCTURE FINANCE AND INNOVATION

Sec. 101. Definitions.
Sec. 102. Authority to provide assistance.
Sec. 103. Application.
Sec. 104. Entities eligible for assistance.
Sec. 105. Projects eligible for assistance.
Sec. 106. Activities eligible for assistance.
Sec. 107. Selection among eligible projects.
Sec. 108. Credit evaluation.
Sec. 109. Terms and conditions.
Sec. 110. Program administration.
Sec. 111. Technical assistance.
Sec. 112. Threshold for assistance.
Sec. 113. Funding.

TITLE II—PRIVATE ACTIVITY BONDS

Sec. 201. Exempt-facility bonds for sewage and water supply facilities.

SEC. 2. FINDINGS.

Congress finds the following:

(1) It is in the national interest to encourage the timely and cost effective rehabilitation and replacement of aging water and sewer infrastructure.

(2) The Environmental Protection Agency reports—

(A) $334,000,000,000 is needed to invest in infrastructure improvements over 20 years to ensure the provision of safe water; and

(B) $202,500,000,000 is needed for publicly owned wastewater systems-related infrastructure needs over 20 years.

(3) Customer rates and local charges are and will remain the primary means of paying for water service and infrastructure.

(4) The municipal bond market and State Revolving Fund programs are the primary long-term means for financing water infrastructure projects, but upfront investment needs are simply too high to be met with these traditional means alone.

(5) Financing constraints make it particularly difficult for State Revolving Funds to support large water infrastructure projects of regional and national significance.

(6) Current financing mechanisms do not sufficiently catalyze private sector investment, while the capital markets, including pension funds, and other investors have a growing interest in infrastructure investment.

(7) This Act will substantially benefit the Nation's drinking water and wastewater systems by—

(A) addressing the gap in funding for large, regionally, and nationally significant projects by making available direct loans and loan guarantees to reduce borrowing costs and accelerate water infrastructure investment;

(B) enhancing the capacity of State Revolving Fund programs to assist other projects;

(C) facilitating private sector investment in drinking water and wastewater infrastructure; and

(D) promoting compliance with the Federal Water Pollution Control Act and the Safe Drinking Water Act.

(8) As the historical default rate on water and sewer bonds is 0.04 percent, the risk of default on Federal assistance provided under this Act is minimal.

(9) Because loans, loan guarantees, and other credit instruments only incur long-term costs if subsidized or in the event of default, this Act can help to meet the Nation's water infrastructure needs at minimal long-term cost to the Federal Government.

TITLE I—WATER INFRASTRUCTURE FINANCE AND INNOVATION

SEC. 101. DEFINITIONS.

In this title, the following definitions apply:

(1) ADMINISTRATOR.—The term "Administrator" means the Administrator of the Environmental Protection Agency.

(2) BORROWER.—The term "borrower" means an eligible entity that owes payments of interest or principal on a credit instrument.

(3) COMMUNITY WATER SYSTEM.—The term "community water system" has the meaning given such term in section 1401 of the Safe Drinking Water Act (42 U.S.C. 300(f)).

(4) COST OF A DIRECT LOAN; COST OF A LOAN GUARANTEE.—The terms "cost of a direct loan" and "cost of a loan guarantee" mean the "cost of a direct loan" and "cost of a loan guarantee", respectively, as those terms are used in section 502(5) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)).

(5) CREDIT INSTRUMENT.—The term "credit instrument" means a direct loan made under this title or a loan or other debt obligation that is subject to a loan guarantee under this title.

(6) DIRECT LOAN.—The term "direct loan"—

(A) means a "direct loan", as such term is defined under section 502(1) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(1)); and

(B) includes a Government purchase of a bond.

(7) LOAN GUARANTEE.—The term "loan guarantee" has the meaning given such term under section 502(3) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(3)).

(8) STATE INFRASTRUCTURE FINANCING AUTHORITY.—The term "State infrastructure financing authority" means the State entity established or designated by the Governor of a State to receive a capitalization grant provided by, or otherwise carry out the requirements of, title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j–12).

(9) TREATMENT WORKS.—The term "treatment works" has the meaning given such term under section 212 of Federal Water Pollution Control Act (33 U.S.C. 1292).

SEC. 102. AUTHORITY TO PROVIDE ASSISTANCE.

The Administrator may make a direct loan (including a subordinated loan) or a loan guarantee to an eligible entity for eligible activities associated with an eligible project, in accordance with this title.

SEC. 103. APPLICATION.

(a) IN GENERAL.—To receive assistance under this title, an eligible entity shall submit to the Administrator

an application at such time, in such manner, and containing such information as the Administrator may require.

(b) COMBINED PROJECTS.—In the case of a project eligible for assistance under section 105(8), the Administrator shall require from the eligible entity a single application for the combined group of projects.

SEC. 104. ENTITIES ELIGIBLE FOR ASSISTANCE.

(a) IN GENERAL.—For the purposes of this title, the following are eligible entities:

(1) An entity (other than a State or local highway or road department or agency) that owns or operates a treatment works that serves the general public, including a municipal or regional separate storm sewer system management agency.

(2) An entity that owns or operates a community water system.

(3) Any grouping or combination of the above that may be cooperating on an eligible project.

(4) A State infrastructure financing authority, for the purposes of providing assistance to an eligible project under section 105(8).

(b) PUBLIC-PRIVATE PARTNERSHIPS.—In the case of an entity that is a public-private partnership, a public entity-owned or investor-owned utility shall be the entity eli-

gible for assistance under this title, and not the private financing or development partner.

SEC. 105. PROJECTS ELIGIBLE FOR ASSISTANCE.

For the purposes of this title, the following are eligible projects:

(1) A capital project to construct, replace, or rehabilitate a treatment works or a community water system.

(2) A capital project to increase the security of a treatment works or a community water system.

(3) A capital project to reduce the energy consumption needs of a treatment works or a community water system, including the implementation of energy efficient or renewable generation technologies.

(4) A capital project to increase water efficiency, reduce the demand for water, or reduce the demand for treatment works or community water system capacity.

(5) A capital project to manage or control stormwater.

(6) A capital project to reuse municipal wastewater or stormwater.

(7) A capital project for the consolidation of two or more treatment works or community water systems.

(8) A group of projects described in any of paragraphs (1) through (7) that are combined for purposes of receiving a single direct loan or loan guarantee.

SEC. 106. ACTIVITIES ELIGIBLE FOR ASSISTANCE.

For the purposes of this title, eligible activities with respect to an eligible project include the following:

(1) Development phase activities, including planning, feasibility analysis, revenue forecasting, environmental review, permitting, and other preconstruction engineering and design work.

(2) Construction, reconstruction, rehabilitation, and replacement required for the project.

(3) Acquisition of real property (including interests in real property), environmental mitigation, construction contingencies, and acquisition of equipment.

(4) Funding mechanisms necessary to meet market or affordability requirements, reasonably required reserve funds, capitalized interest issuance expenses, and other carrying costs during construction of the project.

(5) Refinancing of interim construction financing, long term project obligations, or direct loans or loan guarantees made under this title.

SEC. 107. SELECTION AMONG ELIGIBLE PROJECTS.

(a) IN GENERAL.—The Administrator shall select eligible projects to receive assistance under this title based on the following criteria:

(1) The significance of the infrastructure needs addressed by the project, including the economic, environmental, and public health benefits of the project.

(2) The creditworthiness of the project under consideration, including the terms, conditions, financial structure, and security features making up the proposed financing, and the financial assumptions upon which the project is based.

(3) The need for Federal assistance, including the likelihood that the provision of assistance by the Administrator under this title will cause the project to proceed more promptly and with lower costs for financing than would be the case without such assistance.

(4) The degree to which the project financing plan includes public and private financing in addition to assistance under this title.

(5) The cost of the direct loan or loan guarantee to the Government for the project.

(6) The extent to which the project is nationally or regionally significant.

(b) SPECIAL RULE FOR COMBINED PROJECTS.—In the case of a project eligible for assistance under section 105(8), the Administrator shall consider only the criteria described in paragraphs (1), (2), (3), and (5) of subsection (a).

(c) REASONABLE ASSURANCE OF PAYMENT.— The Administrator may select an eligible project for assistance only if the Administrator finds that there is a reasonable assurance that all payments will be made on the credit instrument.

SEC. 108. CREDIT EVALUATION.

(a) IN GENERAL.—The Administrator shall develop and implement a credit evaluation process before providing any assistance under this title.

(b) PRELIMINARY RATING OPINION LETTER.—For purposes of determining creditworthiness under section 107(a)(2), the Administrator may require an eligible entity to provide a preliminary rating opinion letter from at least one rating agency, or may use an alternative (including an internal) credit rating process.

(c) RULE FOR CERTAIN COMBINED PROJECTS.—In the case of an eligible project under section 105(8) for which a State infrastructure financing authority is the eligible entity, in addition to the creditworthiness consideration under section 107(a)(2), the Administrator shall evaluate the creditworthiness of each entity represented by the State infrastructure financing authority that will be carrying out any project described under paragraphs (1) through (7) of section 105 that will be part of such eligible project.

SEC. 109. TERMS AND CONDITIONS.

(a) IN GENERAL.—Direct loans and loan guarantees made under this title shall be on such terms and conditions and contain such covenants, representations, warranties, and requirements (including requirements for audits) as the Administrator may prescribe.

(b) INTEREST RATE.—

(1) IN GENERAL.—The interest rate applicable to a credit instrument shall be the rate that is set by reference to a benchmark interest rate on marketable Treasury securities with a similar maturity to such credit instrument, as of the date of execution of the agreement.

(2) HIGHER INTEREST RATES.—The Administrator may charge a higher interest rate on a direct

loan if the Administrator determines the risk profile of the project indicates a higher interest rate is necessary to protect the interests of the United States.

(c) TERM OF LOAN.—The Administrator may provide assistance under this title only with respect to a credit instrument the final maturity date of which is not later than 35 years after the date on which funds are disbursed.

(d) SECURITY FEATURES.—The Administrator shall require a borrower receiving assistance under this title to use a rate covenant, coverage requirement, or similar security feature supporting the project obligations to ensure repayment.

(e) DIRECT LOAN REPAYMENTS.—

(1) SCHEDULE.—The Administrator shall establish a repayment schedule for each direct loan under this title based on the projected cash flow from project repayment sources.

(2) COMMENCEMENT.—Scheduled repayments of principal or interest on a direct loan made under this title shall commence not later than the earlier of—

(A) 5 years after the date of substantial completion of the project, as determined by the Administrator in a manner set forth at the time the direct loan is made; or

(B) [__] years after the date on which the direct loan is made.

(3) DEFERRAL OF PAYMENTS.—

(A) IN GENERAL.—If the Administrator determines that a borrower lacks the resources to make scheduled payments on a direct loan made under this title based on circumstances not foreseeable at the time the direct loan is made, the Administrator may allow for the deferral of such payments.

(B) INTERESTS.—Any payment deferred under subparagraph (A) shall—

(i) continue to accrue interest until fully repaid; and

(ii) be scheduled to be amortized over the remaining term of the direct loan.

(C) CRITERIA.—Any payment deferral under subparagraph (A) shall be contingent on the project meeting criteria established by the Administrator, which shall include standards for reasonable assurance of repayment.

(4) PREPAYMENT.—Payments on the direct loan may be made in advance with no penalty.

(f) SPECIAL RULES FOR LOAN GUARANTEES.—

(1) TERMS.—The terms of a credit instrument that is the subject of a loan guarantee under this title shall be consistent with the terms set forth in this title for a direct loan, except that the interest rate and any pre-payment features on such credit instrument shall be negotiated between the borrower and the lender, with the consent of the Administrator.

(2) INTEREST RATE.—The Administrator may make a loan guarantee under this title only if the Administrator determines that the interest rate on the credit instrument that is subject to such loan guarantee is appropriate, taking into account the prevailing rate of interest in the private sector for similar obligations.

(3) ELIGIBLE LENDER.—The Administrator may not make a loan guarantee under this title unless the lender of the loan or purchaser of the debt security that will be the subject of the loan guarantee is a non-Federal qualified institutional buyer (as defined in section 230.144A(a) of title 17, Code of Federal Regulations (or any successor regulation)), including—

(A) a qualified retirement plan (as defined in section 4974(c) of the Internal Revenue Code

of 1986) that is a non-Federal qualified institutional buyer; and

(B) a governmental plan (as defined in section 414(d) of the Internal Revenue Code of 1986) that is a non-Federal qualified institutional buyer.

(4) ADEQUATE SERVICING PROVISIONS REQUIRED.—No loan guarantee may be made under this title for a loan unless the Administrator determines that the lender with respect to such loan is responsible and that adequate servicing provisions have been made for the loans that are the subject of such loan guarantee that are reasonable and protect the financial interest of the United States.

SEC. 110. PROGRAM ADMINISTRATION.

(a) IN GENERAL.—The Administrator shall establish a uniform system to service the direct loans and loan guarantees made under this title.

(b) ASSISTANCE FROM EXPERT FIRMS.—The Administrator may retain the services of expert firms, including counsel, in the field of municipal and project finance to assist in the underwriting and servicing of direct loans and loan guarantees made under this title.

(c) FEES FOR ADMINISTRATIVE EXPENSES.—

(1) IN GENERAL.—In providing assistance under this title, the Administrator may collect fees for administrative expenses, including premiums for loan guarantees, at a level that is sufficient to cover the costs of services of expert firms and all or a portion of the costs to the Federal Government of servicing the direct loans and loan guarantees made under this title and, as provided in advance in appropriations acts, use such amounts to cover such expenses.

(2) LEVEL OF FEES.—The Administrator shall set such fees at a level that will minimize the cost to the Federal Government and maximize the assistance that can be provided under this title, while providing competitive credit terms to eligible projects, in order to lower borrowing costs and accelerate water infrastructure investment.

SEC. 111. TECHNICAL ASSISTANCE.

The Administrator may use funds appropriated under this title to provide technical assistance to applicants and prospective applicants in constructing financing packages that leverage a mix of public and private funding sources.

SEC. 112. THRESHOLD FOR ASSISTANCE.

The Administrator may provide assistance under this title only with respect to a credit instrument in an amount of $20,000,000 or more.

SEC. 113. FUNDING.

(a) AUTHORIZATION OF APPROPRIATIONS.—

(1) DIRECT LOANS AND LOAN GUARANTEES.—There are authorized to be appropriated for the cost of providing direct loans and loan guarantees under this title—

(A) [$_____] for fiscal year 2013;

(B) [$_____] for fiscal year 2014;

(C) [$_____] for fiscal year 2015; and

(D) [$_____] for fiscal year 2016, and each fiscal year thereafter.

(2) ADMINISTRATIVE EXPENSES.—There are authorized to be appropriated amounts equal to any fees collected under section 110, and in addition there are authorized to be appropriated for administrative expenses under this title—

(A) [$_____] for fiscal year 2013;

(B) [$_____] for fiscal year 2014;

(C) [$_____] for fiscal year 2015; and

(D) such sums as may be necessary for fiscal year 2016, and each fiscal year thereafter.

(b) PAYMENT OF SUBSIDY COST.—A borrower may pay for the cost of a direct loan or loan guarantee under this title, along with the appropriate amount of related administrative expenses, and the Administrator may use such payment, as provided in advance in appropriations Acts, instead of using funds authorized under subsection (a), to make such direct loan or loan guarantee to the borrower.

TITLE II—PRIVATE ACTIVITY BONDS

SEC. 201. EXEMPT-FACILITY BONDS FOR SEWAGE AND WATER SUPPLY FACILITIES.

(a) BONDS FOR WATER AND SEWAGE FACILITIES EXEMPT FROM VOLUME CAP ON PRIVATE ACTIVITY BONDS.—Paragraph (3) of section 146(g) of the Internal Revenue Code of 1986 is amended by inserting "(4), (5)," after "(2),".

(b) CONFORMING CHANGE.—Paragraphs (2) and (3)(B) of section 146(k) of the Internal Revenue Code of

1 1986 are both amended by striking "(4), (5), (6)," and
2 inserting "(6)".

3 (c) EFFECTIVE DATE.—The amendments made by
4 this section shall apply to obligations issued after the date
5 of the enactment of this Act.

A REVIEW OF INNOVATIVE FINANCING APPROACHES FOR COMMUNITY WATER INFRASTRUCTURE PROJECTS—PART II

WEDNESDAY, MARCH 21, 2012

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON WATER RESOURCES
AND ENVIRONMENT,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:05 a.m., in Room 2165, Rayburn House Office Building, Hon. Bob Gibbs (Chairman of the subcommittee) presiding.

Mr. GIBBS. Welcome to the second hearing of the Water Resources and Environment Subcommittee on a review of innovative financing approaches for water infrastructure projects. I will start with an opening statement here, and then we will turn it over to my ranking member, and then we will turn it over to the panel.

But first, welcome. As I said, this is the second panel on this subject. The first hearing we had was on February 28th. At that hearing, we heard that there is a tremendous amount of capital from the private sector and other sources potentially available for investment in our wastewater and drinking water infrastructure.

We also heard that in recent years, the financial markers have been "discovering" water and wastewater infrastructure and how this is becoming a popular asset class that is increasingly attracting billions of dollars of private investment capital. This is important because we need to take a variety of financing tools available to the infrastructure financing in the toolbox, so to say. This includes both public and private funding and investment mechanisms.

There are a number of past and current legislative proposals that could provide additional means for increasing investment in infrastructure. For example, there is legislation to remove the volume cap that restricts the amount of private activity bonds that States and localities may issue in any given year for water and wastewater facilities. This would remove a barrier that has long inhibited bringing private sector capital to municipal water and wastewater markets.

In addition, the subcommittee is looking at a potential financing tool that would provide Federal credit assistance in the form of direct loans and loan guarantees to finance significant water and wastewater infrastructure projects. This draft legislative proposal would be entitled the Water Infrastructure Finance Innovation Act,

otherwise known as WIFIA. This WIFIA proposal is part of a model after the TIFIA program for surface transportation projects and other credit programs governed by the Federal Credit Reform Act.

WIFIA is designed to complement, not to compete, with the Clean Water and Drinking Water State Revolving Fund programs, but being another variety of financing tool in the toolbox for infrastructure financing. There is plenty of room for SRF, WIFIA, and private activity bonds and other approaches to coexist and serve communities in infrastructure financing needs.

Lastly, there are other proposals, including clean water SRF reauthorization legislation, that this subcommittee has advanced in past Congresses, and is included in a bill that the subcommittee ranking member, Mr. Bishop, has introduced in this Congress.

Today we will build on the information we obtained in part one of this hearing and receive testimony from an excellent panel of witnesses about these proposals and other potential ways to encourage increased investment in water and wastewater infrastructure, including from private sources.

Before I recognize the ranking member, I want to welcome two witnesses from Ohio, Ronald Behm, who is mayor of the city of Napoleon, and congratulations to the recently elected mayor of the city of Napoleon of northwestern Ohio, in Congressman Bob Latta's district; and also David Weihrauch, who is the treatment plant manager for the drinking water utility serving the city of Oxford down in southwestern Ohio, which is part of Speaker Boehner's district.

So welcome, and at this time I will turn it over to Ranking Member Bishop for any comments you may have.

Mr. BISHOP. Thank you very much, Mr. Chairman, and thank you for holding today's hearing. This is the second part in a two-part series on the importance of investing in our Nation's crumbling wastewater infrastructure.

As I noted at our last hearing, this subcommittee has a long history of working across the aisle to renew the Federal commitment to wastewater infrastructure. Over the past decades, under both Republican and Democratic majorities, we have taken significant steps to address the long-term infrastructure challenges facing our States and communities, including passage of several bipartisan water infrastructure financing measures.

These past measures highlight the best of what this subcommittee and this full committee is capable of doing, bridging any potential disagreements between the sides and moving forward on joint proposals that garner overwhelming support in committee and on the House floor, most recently, in the 111th Congress, by an almost 3 to 1 vote of support.

Since our February 27th hearing, we have had failures of water pipes here in the Washington, DC, metro area, creating sinkholes in roads and disrupting traffic. In San Antonio, Texas, two sewage pipelines broke, spilling more than 200,000 gallons of untreated sewage into local water bodies. And in Delray Beach, Florida, tens of thousands of gallons of raw sewage poured from a ruptured pipe. Upon inspection, the water department found that sewer gases had disintegrated one-third of the 30-year-old pipe.

I draw reference to these three events as examples of the systemic problem that now faces our Nation. With aging infrastructure and increasing demand, we have to find solutions, not excuses. The traditional financing tools that we have used historically need revising and adjustment in the face of the public demands and expectations and the reality of our fiscal situations.

Mr. Chairman, at last month's hearing, you encouraged the witnesses to evaluate the two proposals that are currently before this subcommittee, your discussion draft entitled the Water Infrastructure Finance and Innovation Act of 2012, as well as a copy of the bipartisan bill that I have introduced with the ranking member of the full committee, Mr. Rahall, and Congressmen LaTourette and Petri, H.R. 3145, the Water Quality Improvement and Job Creation Act of 2011. I am happy to announce that since our last meeting, nearly a dozen additional House Members have cosponsored H.R. 3145.

Both bills include mechanisms modeled after the successful Transportation Infrastructure Finance and Innovation Act, or the TIFIA program, authorized in TEA–21 to leverage additional capital for wastewater infrastructure investment. Although there are some differences in approach, my first impression is that there are more similarities than differences between these two drafts on this point, and that should give us all reason to work more closely together.

Last month's hearing also gave us the opportunity to discuss several critical policy questions integral to our consideration of water infrastructure financing legislation, namely, who is better suited to decide which projects are funded and how a new water infrastructure financing authority would complement or potentially compete with the existing Clean Water State Revolving Fund.

During the question-and-answer period, I want to further pursue these questions with our witnesses as well as questions on the potential impact of differing financing approaches, including private capital, on local communities and workforces. Similarly, in considering the economic challenges facing all levels of Government, I want to explore how we can target Federal resources to those who will benefit from it most, our local communities.

I also do not want to lose sight of the fact that investing in our water infrastructure not only improves the pipes and pumps, the investment creates much-needed construction and engineering jobs and creates opportunities for America's economy to step forward and build for the future.

Mr. Chairman, as I noted earlier, the existing Clean Water Act has served this Nation well in meeting its water quality and water infrastructure concerns, and needs to be part of the long-term solution to addressing future challenges. The question of how some of these alternative financing approaches we will discuss today complement, duplicate, or conflict with existing law in meeting these challenges will still need to be addressed.

Again, I welcome today's hearing as an opportunity to further this conversation. I am hopeful that on this issue of meeting our long-term water infrastructure challenges, we can find agreement and move forward with one voice on an issue that greatly benefits

our communities, our economy, and our overall public health and the environment.

And before I yield back, Mr. Chairman, I have three statements that I would like to submit for the record, with unanimous consent. The first is a statement from American Rivers endorsing—pardon me—that speaks to both the bill that I have filed and the draft bill that you are working on; also, a statement from the Association of Metropolitan Water Agencies; and finally, a copy of a letter that I, along with Congressman LaTourette and Congressman Blumenauer, sent to Doug Elmendorf, the director of the CBO, requesting that he begin to provide us with suggestions for how we would fund a clean water trust fund.

Mr. GIBBS. So ordered.

Mr. BISHOP. Thank you very much. I yield back the balance of my time.

[The material referenced by Mr. Bishop follows:]

American Rivers
Rivers Connect Us

March 19, 2012

The Honorable Bob Gibbs
329 Cannon House Office Building
United States House of Representatives
Washington, DC 20515

The Honorable Timothy Bishop
306 Cannon House Office Building
United States House of Representatives
Washington, DC 20515March 13, 2012

RE – Innovative Financing Approaches for Community Water Infrastructure

Dear Water Resources and Environment Subcommittee Chair Gibbs and Ranking Member Bishop,

On behalf of American Rivers' thousands of members and supporters across the country, we thank you for your attention to the critical need to reinvest in our crumbling water infrastructure and consider innovative financing approaches. As you know, discharges from aging and failing sewer systems, urban stormwater, and other sources continue to pose serious threats to our nation's lakes, rivers and estuaries, endangering not only public health but our economic stability. From broken water and sewer mains to sewage overflows, the condition of our water infrastructure results in significant losses and damages and has received a grade of D minus, the lowest of any category, in the American Society of Civil Engineers' latest infrastructure report card.

Investments in 21st century water infrastructure solutions, including green infrastructure and water efficiency, will create good, U.S. based jobs, support a burgeoning manufacturing sector, and save money. The recent report *Water Works: Rebuilding Infrastructure, Creating Jobs and Greening the Environment* shows that investments in our water infrastructure, including green infrastructure, would conservatively yield 1.9 million American jobs and add $265 billion to the economy. [1] An economic analysis conducted by the Alliance for Water Efficiency estimates that a direct investment of $10 billion in water efficiency programs can boost U.S. employment by 150,000 to 220,000 jobs.[2] Moreover, these approaches are also cost effective. A 2003 report commissioned by the Department of Housing and Urban Development and the National Association of Homebuilders demonstrated that green infrastructure practices can be more cost-effective than traditional infrastructure solutions, which allows more work to be done with a comparable outlay of funding.

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[1] *Water Works: Rebuilding Infrastructure, Creating Jobs, Greening the Environment.* Green for All, American Rivers, and the Economic Policy Institute (2011) http://www.greenforall.org/resources/water-works.
[2] Transforming Water: Water Efficiency as Stimulus and Long-Term Investment, Alliance for Water Efficiency (2008) http://www.allianceforwaterefficiency.org/.

We believe that it is critical to increase funding for water infrastructure through traditional means and by establishing innovative financing mechanisms, while ensuring that funding is directed to the most cost-effective and sustainable infrastructure and avoids wasteful investment in expensive and inflexible infrastructure. Our comments below focus on recommendations 1) for innovative finance for sustainable water infrastructure, and 2) on the draft Water Infrastructure Finance and Innovation Act legislation.

Financing Sustainable Water Infrastructure

We believe that to provide clean and reliable water for rivers and people, we must seek solutions that involve traditional funding mechanisms as well as innovative financing solutions. For this reason, American Rivers has been working in collaboration with Ceres and the Johnson Foundation to convene a diverse group of utilities, investors and clean water advocates to discuss ways to leverage public funding and incentives as well as private financing to drive innovation and resources toward more sustainable and integrated management of water resources in the United States. The initial report *Financing Sustainable Water Infrastructure* describes the critical reasons to invest in sustainable infrastructure that is resilient, the obstacles to such investment, shortcomings in current financing approaches and strategies for innovative finance.[3] At its core, the recommendations are based on the need to establish, fund and finance infrastructure that encompasses built and natural infrastructure, maximizes flexibility and adaptability, and removes unnecessary silos between drinking water, wastewater and stormwater to maximize the environmental, social and economic benefit of every dollar invested. Unfortunately, many of the current programs that finance water infrastructure are not effectively delivering the investments we need to address water infrastructure challenges.

Some of our key recommendations for innovative finance stemming from this report and our ongoing work are as follows:

1. *Expand the Pool of Funding for "Water" Infrastructure* – Roads and highways, for example, are a major source of water pollution, and the growing number of green streets, highways, and alleys across the country reflect the successful integration of water and transportation planning. Integrating stormwater planning into transportation capital improvement planning can be a cost-effective strategy for communities that can expand the typical funding base for clean water.[4] Similarly, partnering with land protection agencies and private industries can open additional opportunities. Finally, some utilities are beginning to "harvest" nutrients and energy from what has been considered a waste stream, creating another potential source of revenue.

2. *Account for Watershed Services* – Protecting a watershed's natural capacity to filter water is a cost-effective way to provide clean drinking water to downstream residents while also reducing flood risk. Currently, utilities cannot show the value of such natural infrastructure on their balance sheets. Accurately valuing investments in natural infrastructure is critical to protecting these resources and will allow communities to expand their debt capacity to finance other improvements.

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[3] *Financing Sustainable Water Infrastructure, A Convening Report.* The Johnson Foundation, American Rivers and Ceres(January 2012) http://www.johnsonfdn.org/sites/default/files/reports_publications/WaterInfrastructure.pdf.

[4] See e.g. *Low Impact Development Feasibility Study: Analysis of Opportunities and Constraints to Incorporate Low Impact Development into Capital Improvement Projects (CIP) in Kirkland Washington.* SvR Design Company (2007).

3. *Facilitate Financing for Distributed Water Infrastructure* – Across the country, communities are increasingly using decentralized or distributed approaches like green roofs and rain gardens to reduce polluted stormwater runoff, sewer overflows and flooding. Despite this, traditional finance approaches continue to favor only centralized and fixed assets. Likewise, water efficiency is often the cheapest source of new water supply, and yet is rarely financed. Stormwater utility fees and credits are a good example of a new funding source that communities can use to create incentives for on-site water management. Taking such investments to scale may provide an opportunity for the growing small business community specializing in green roofs and other techniques to profit. Distributed water infrastructure must play an increasing role in our water systems, and we must ensure that our financing mechanisms do not serve as a barrier to these approaches.

Water Infrastructure Finance and Innovation Authority

American Rivers supports a variety of policies that promote sustainable infrastructure, including funding, finance, research and development, and regulatory safeguards. The concept of a Water Infrastructure Finance and Innovation Authority (WIFIA) to increase credit and loan availability for water infrastructure is one we would support, assuming the WIFIA was designed in a way to achieve sustainable water infrastructure and ensure clean water and healthy rivers. Our specific comments below refer to the WIFIA proposal discussion draft from February 22, 2012 distributed at the recent water infrastructure hearing before the Water Resources and Environment Subcommittee.

Funding Process

The State Revolving Loan Funds (SRFs) are long established mechanisms for evaluating and prioritizing water infrastructure projects. The state processes include opportunities for public participation and evaluation of projects and associated benefits through the state intended use plan process. Green infrastructure, nonpoint source pollution reduction, and water efficiency are all eligible projects under the SRFs, and demand for these innovative type projects has outstripped available funds in recent years.[5] Because the SRFs already exist in every state and function to distribute water infrastructure funds, we recommend that WIFIA funds are distributed through the SRF. This structure is reflected in the bipartisan HR 3145 that includes a WIFIA provision, thus achieving the goals of funding larger infrastructure projects without having to create a separate funding selection process run by the Environmental Protection Agency.

Project Selection Process and Project Eligibility

Establishing selection criteria for water infrastructure projects that reflect sustainability principles is critical. As is, some of the criteria, such as "nationally or regionally" significant are vague and undefined. Loans and loan guarantees should be prioritized for projects that can show that they are maximizing the use of cost-effective and sustainable approaches upfront. In working towards improving water infrastructure and protecting clean water supplies, communities across the country have recognized the benefits and cost savings, for example, of using green infrastructure and water efficiency solutions that effectively reduce polluted runoff and expand capacity for water supply systems when integrated into a broader water management

[5] See *Putting Green to Work Economic Recovery Investments for Clean and Reliable Water*. American Rivers (2010).

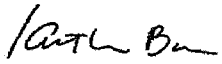
system. Selection criteria should reflect these advances at a minimum, and also try to reward further innovation in the areas of energy capture and recovery, land protection, and potable water reuse. Similarly, the definitions of projects eligible for assistance, such as stormwater management, should be clarified to better reflect current best practices and technologies, and encourage environmentally preferable options to protect clean water. Finally, by limiting stormwater and water efficiency to capital projects, there is a missed opportunity to achieve clean and safe water. While spending to reduce water loss associated with construction and rehabilitation is important, there are significant opportunities to save water through non-capital projects such as a utility-backed retrofit program. Likewise, communities need the ability to incentivize stormwater retrofits to achieve clean water. These approaches, while not considered capital projects, can be a key part of a water management plan and should be included as eligible under a WIFIA approach as part of a larger loan application.

Risk Evaluation

The WIFIA concept is premised in part on the fact that water and sewer bonds are considered low-risk and that the water sector is generally stable. Increasingly, however, there is understanding that drought, water scarcity and conflict are increasing risk in the water sector and should not be ignored.[6] Bond ratings in metro Atlanta, Georgia have been at risk of dropping given the contested water supplies and that the state has not prioritized investing in conservation, efficiency and maintenance, instead choosing to pursue expensive and inflexible big reservoirs.[7] Any WIFIA legislation should require full evaluation of true environmental risk, the viable water supply alternatives, and careful analysis of population and demand forecasts that take conservation and efficiency into account. This type of evaluation will reduce the risk that limited federal funds are invested into wasteful and environmentally damaging projects that would not be competitive in the private sector and that would ultimately place the burden on taxpayers.

Thank you for the opportunity to submit these comments. We look forward to working with you to continue the federal commitment to clean and safe water for our communities.

Sincerely



Katherine Baer
Senior Director, Clean Water Program
American Rivers

[6] See e.g. *Ripple Effect: Water Risk in the Municipal Bond Market*. Ceres (2010).
[7] *Water: Cheaper in the Lake than in the Reservoir*. Erica Gies, Forbes.com (June 9, 2011).

ASSOCIATION OF METROPOLITAN WATER AGENCIES

March 21, 2012

The Honorable Robert Gibbs
Chairman
Subcommittee on Water Resources and Environment
U.S. House of Representatives
Washington, DC 20515

The Honorable Timothy Bishop
Ranking Member
Subcommittee on Water Resources and Environment
U.S. House of Representatives
Washington, DC 20515

Dear Congressmen:

On behalf of the Association of Metropolitan Water Agencies (AMWA), thank you for the opportunity to submit this statement for the record of part two of the Subcommittee's hearing on "Innovative Approaches to Water Infrastructure Financing." As representatives of the nation's largest publicly-owned drinking water systems, we greatly appreciate your efforts on this issue.

AMWA strongly supports the "Water Infrastructure Financing and Innovation Act (WIFIA)" as circulated by Chairman Gibbs last month. As drafted, the legislation would increase the availability of federal loans for large-scale infrastructure investments that may not be suitable for assistance through the existing Drinking Water and Clean Water State Revolving Fund (SRF) programs. WIFIA will therefore provide a job-creating boost to water infrastructure projects across the country.

Currently, metropolitan drinking water systems are underserved by the DWSRF for two main reasons. First, because annual SRF dollars are shared among the fifty states, the District of Columbia, and the territories, the overall funding is stretched thin. Respective state authorities charged with distributing their share of SRF dollars therefore often choose to spread their share of the funds out among many worthwhile but small infrastructure projects, rather than setting aside a high percentage of the state's share for a single large project in an urban area. Similarly, many metropolitan water utilities decide against even applying for any SRF dollars when financing a large project, because the available SRF funding, if secured, would only cover a small percentage of the project's overall cost.

Secondly, and more importantly, the Safe Drinking Water Act requires states to award priority for DWSRF funding to projects that address serious public health

concerns, facilitate compliance with federal drinking water standards, or assist water systems with the greatest needs on a per-household basis. Because ninety-six percent of health-based drinking water quality violations occur at water systems serving fewer than 10,000 people, these small systems are positioned to receive a disproportionate amount of DWSRF funding. This is a worthwhile and appropriate use of DWSRF dollars, but an unintended consequence is that there is no federal program designed to offer low-cost financing assistance to large-scale infrastructure projects at utilities whose water does not pose a public health threat to their community.

This is the gap that WIFIA would fill. As drafted by Chairman Gibbs, WIFIA would offer assistance to a broad range of water infrastructure needs, such as construction, replacement, and rehabilitation efforts, system security improvements, energy and water efficiency enhancements, and water reuse projects. Importantly, the minimum WIFIA loan amount would be $20 million – above which individual SRF loans are rarely, if ever, awarded. At the same time, WIFIA would permit multiple smaller utilities to pool their projects together into a single WIFIA application that meets the $20 million minimum threshold, and apply for funding either on their own or with the help of their state's SRF authority. This framework will ensure that water systems of all sizes and needs will have an opportunity to take advantage of low-cost WIFIA loans.

During part one of the subcommittee's hearing on WIFIA and other innovative water infrastructure approaches on February 28, some questions were raised about the efficacy having EPA, rather than various state SRF authorities, choose the recipients of WIFIA loans. Here, AMWA believes that modifications to the framework outlined in Chairman Gibbs' draft bill would significantly undermine the ability of WIFIA to finance the large water projects it was intended to target.

For example, in the case of drinking water projects, routing WIFIA money through various state DWSRF programs would not only impede meaningful assistance to the most consequential projects, but would also subject the funds to the public health protection and SDWA compliance priority conditions of the DWSRF – the same conditions that currently limit the participation of larger water systems. As a result, WIFIA would simply serve as a shadow SRF program, and the largest water infrastructure projects at the nation's metropolitan water utilities would continue to lack any federal loan program focused on their unique needs.

In contrast, WIFIA is designed to think bigger. By aiming to fund "nationally or regionally significant" projects, it will provide a new stream of low-cost loans to America's cities, helping these communities access low-cost capital and sparing their customers from drastic water rate increases. More efficient investment in these large projects will create thousands of construction jobs in urban areas, delivering secure and well-paying employment where it is needed most. And to reiterate, WIFIA would offer the same opportunities to smaller water systems that combine their multiple projects into a single application that exceeds $20 million. WIFIA will benefit large and small communities alike.

Finally, there has also been some concern expressed about the possibility of WIFIA funding crowding out separate appropriations for the existing SRF programs. AMWA does not believe this would occur, because each program would focus on its own distinct purpose: WIFIA funding large water infrastructure repair and replacement efforts, and the SRFs focused on smaller-scale efforts that help communities in all fifty states maintain compliance with water quality standards. There are numerous reports documenting significant national needs in both of these areas, so structuring WIFIA and the SRFs to compliment each

other by focusing each program on a particular angle of the water infrastructure challenge will help deliver the most effective results.

Again, thank you for jump-starting this important discussion on investment in the nation's water infrastructure. AMWA strongly supports the WIFIA program as outlined in Chairman Gibbs' draft legislation, and we hope to have the opportunity to work with the subcommittee to make his vision a reality.

Sincerely,

Diane VanDe Hei
Executive Director

Congress of the United States
Washington, DC 20515

March 16, 2012

Mr. Doug Elmendorf
Director
Congressional Budget Office
H2-405 Ford Office Building
Washington, D.C. 20515

Dear Mr. Elmendorf:

Since enactment of the Clean Water Act in 1972, the Federal government has invested more than $96 billion for wastewater infrastructure and other assistance. The improvements to water quality realized through this investment, combined with that of state and local governments, have been significant, helping to increase the number of fishable and swimmable waters throughout the nation, and have made vital contributions to public health, the health of the economy, and the quality of the environment. Today, the nation's farmers, fishermen, and manufacturing and tourism industries rely on clean water to carry out activities that contribute more than $300 billion to the domestic economy annually.

Recent analyses, including the U.S. Environmental Protection Agency's (EPA) Clean Watersheds Needs Survey, and the November 2002 report of the Congressional Budget Office (CBO), indicate that current federal, state, and local funding trends will not be sufficient to meet the nation's growing demand for wastewater infrastructure. As a result, wastewater utilities and ratepayers across the country are predicted to face major challenges over the next two decades in funding necessary capital expenditures to repair, replace, and modernize aging pipes and facilities, as well as meet the continuing challenges to improved water quality, including addressing sewer overflows and stormwater.

Over the last decade, several legislative proposals have been introduced in Congress to address these challenges though the creation of a Clean Water Trust Fund, including H.R. 3145, the Water Quality Improvement and Job Creation Act of 2011 (112th Congress) and H.R. 3202, the Water Protection and Reinvestment Act of 2009 (111th Congress). In concept, a Clean Water Trust Fund would provide a deficit-neutral, sustainable, and long-term federal contribution to protecting existing water resources at the lowest possible cost.

In furtherance of the discussion on creating a Clean Water Trust Fund, we are writing to request that the Congressional Budget Office assist our efforts in analyzing potential funding mechanisms and revenue sources for a trust fund that are broad based, equitable, and that support annual funding levels of at least $10 billion.

In particular, we request that CBO conduct a study that:

- Evaluates existing studies and reports on potential sources of revenue for a clean water trust fund, including the May 2009 report of the Government Accountability Office, entitled "Clean Water Infrastructure: A Variety of Issues Need to Be Considered When Designing a Clean Water Trust Fund" (GAO-09-037) and the June 1996 report of EPA, entitled "Alternative Funding Study, Water Quality Fees and Debt Financing Issues" (EPA-832-R-96-001).

- Analyses and compares the potential funding mechanisms and revenue sources identified by these reports (as well as others independently identified by CBO), including whether the potential mechanisms or sources would be broad based, equitably allocated, and sustainable, and could be efficiently collected.

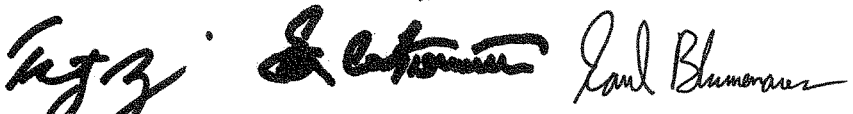
- Identifies and discusses arguments for and against potential funding mechanisms and revenues sources to help finance a Clean Water Trust Fund. Such analysis should focus on the logical connections between the mechanism or source and water quality, as well as the process for efficiently collecting funds for the trust fund.

- Identifies those potential funding mechanisms and revenue sources which are, alone or in combination, most likely to sufficiently support annual funding levels of at least $10 billion.

To maximize its usefulness to the Congressional debate, we request that CBO complete its study by January 20, 2013. As the appropriate Committees of the U.S. House of Representatives consider legislation to address the long-term wastewater infrastructure needs of the nation, we would welcome the opportunity for CBO to participate in this debate by presenting any findings available at the time.

Thank you in advance for your assistance.

Sincerely,



Tim Bishop
Member of Congress

Steve LaTourette
Member of Congress

Earl Blumenauer
Member of Congress

Mr. GIBBS. Thank you.

At this time I want to introduce the rest of the panel, and then we will turn it over to our first panel witness. And what we will do, we will go through the whole lineup with your opening statements, and then we will do question and answers.

As you can see, there are just the two of us here. Others might stroll in. There are a lot of other committees happening, a lot of conflicts, but I know there is a lot of interest in this subject area.

But I already introduced the mayor. But then next to the mayor, we have Ms. Massey. She is the director of the Missouri Environmental Improvement and Energy Resources Authority; she is testifying on behalf of the Council of Infrastructure Financing Authorities. And I believe she really represents the State SRFs.

Of course, Mr. Weihrauch from Ohio. Then we have Mr. Stephen Howard, Infrastructure Project Finance, Barclays Capital; I am really looking forward to the testimony on financing opportunities. We also have Mr. David Dornbirer, vice president of Energy and Water Services Division of the Cooperative Bank out in Colorado.

Next to him is Mr. Benjamin Grumbles. He is president of the Clean Water America Alliance. And then Mr. Ryan Schmitt is president of Petticoat-Schmitt Civil Contractors. He is chairman of the board of NUCA, which is representing the utility and excavation contractors, testifying on behalf of NUCA today.

Then we have Ms. Lynn Broaddus, director, Environment Program, The Johnson Foundation at Wingspread, Racine, Wisconsin—Racine, I guess. Racine. Mr. Richard Abelson; he is executive director of AFSCME, Council 48, Milwaukee, Wisconsin, testifying on behalf of the American Federation of State, County, and Municipal Employees.

Welcome today, and we will start down here with the mayor from Napoleon, Ohio. The floor is yours.

TESTIMONY OF MAYOR RONALD A. BEHM, CITY OF NAPOLEON, OHIO; KAREN MASSEY, DIRECTOR, MISSOURI ENVIRONMENTAL IMPROVEMENT AND ENERGY RESOURCES AUTHORITY, TESTIFYING ON BEHALF OF THE COUNCIL OF INFRASTRUCTURE FINANCING AUTHORITIES; DAVID WEIHRAUCH, WATER TREATMENT PLANT MANAGER, CITY OF OXFORD, OHIO; STEPHEN E. HOWARD, DIRECTOR, INFRASTRUCTURE PROJECT FINANCE, BARCLAYS CAPITAL; DAVID DORNBIRER, VICE PRESIDENT, ENERGY AND WATER SERVICES DIVISION, COBANK; BENJAMIN H. GRUMBLES, PRESIDENT, CLEAN WATER AMERICA ALLIANCE; RYAN SCHMITT, PRESIDENT, PETTICOAT-SCHMITT CIVIL CONTRACTORS, INC., AND CHAIRMAN OF THE BOARD, NUCA, REPRESENTING UTILITY AND EXCAVATION CONTRACTORS, TESTIFYING ON BEHALF OF NUCA; LYNN BROADDUS, DIRECTOR, ENVIRONMENT PROGRAM, THE JOHNSON FOUNDATION AT WINGSPREAD; AND RICHARD ABELSON, EXECUTIVE DIRECTOR OF DISTRICT COUNCIL 48, AMERICAN FEDERATION OF STATE, COUNTY, AND MUNICIPAL EMPLOYEES (AFSCME)

Mr. BEHM. Good morning, Chairman Gibbs, Ranking Member Bishop, and members of the subcommittee. My name is Ronald Behm, and I am the mayor of the city of Napoleon, Ohio.

The city of Napoleon is located in northwest Ohio in Congressman Latta's district along the Maumee River. It is your typical small town USA. We are facing challenges similar to others who live in the Midwest with high unemployment, lower salaries, decreasing property values, and rising costs.

Using a 10-year comparison of the U.S. Census data, the city of Napoleon has lost nearly 600 residents over the past decade, and the median household income is roughly $2,000 lower than 10 years ago. The median household income for a resident of our community is $35,762. This is significantly lower than the Ohio average of $47,318.

Our city is facing other challenges in that we are under findings and orders for our SSOs and CSOs. In 2004, the city came to an agreement with the EPA for a 20-year plan, which requires the city to remove all SSOs from our system and reduce the CSOs to one. The plan was estimated to cost our city $35 million to complete, and contains 62 individual projects.

As of 2012, the city of Napoleon is on schedule and we have completed 22 of the 62 projects. So far we have spent more than $19½ million. Our city engineer estimates that the total cost of all 62 projects for the 20-year period will cost closer to $100 million. In addition, we now have to spend another $15 million to upgrade our water treatment plant to meet current and near-future EPA standards. So the total bill our community of 8,749 residents will receive due to the EPA is approximately $115 million.

The city of Napoleon has made efforts to pay for the projects by raising the sewer and water rates. These increases have been added every year but one since 2003. This has doubled the water and sewer rates for our residents and businesses. Of the $19½ million spent on this project so far, the city of Napoleon has issued debt for $19.4 million. Even though we have doubled our water rates, we are still only able to service the debt and pay for the normal water and sewer operations.

Over the next 2 years, our city council has authorized two additional rate increases totaling 20 percent, as suggested by an independent consultant. In 3 years, when it is time to upgrade the water plant, it has been recommended that the city must raise the water rates by an additional 50 to 60 percent.

The concern with increasing taxes and raising rates is that at some point in time you reach a breaking point, a point where the residents and businesses cannot afford to pay the rates but instead are forced to leave our city. I fear that our community is at that breaking point. The bottom line is that we simply cannot continue to proceed down this road, a road we have been forced to go down rather than pay fines imposed by the EPA.

The Water Infrastructure Finance and Innovation Act, as I understand it, attempts to help communities receive funding. However, the city of Napoleon has not had a problem with receiving funds and issuing debt. Our problem is with raising money to pay the debt and the amount of time in which we have to pay.

I am familiar with another bill, H.R. 1189, the Clean Water Affordability Act 2011, sponsored by Congressman Latta, which helps address the problems that the city of Napoleon and so many communities of similar size are facing. H.R. 1189 would help assist mu-

nicipalities in funding projects for wastewater treatment and extent repayment periods to 30 years of the design life of the project. This would have been helpful with our equalization basin, which cost the city $8.85 million to build, has an estimated life of 30 to 40 years, but we could only receive funding for 20 years.

H.R. 1189 also requires States to put aside 15 percent of funds for assistance to municipalities of fewer than 10,000 residents that meet specified affordability criteria. It also requires States to establish affordability criteria to help identify those in greatest need.

The city of Napoleon needs assistance if we are expected to continue to meet the mandates we have been saddled with. This is an issue that is shared by all residents, regardless of their political positions and beliefs. That is why I am hoping Congress will come to an agreement which will help cities in similar situations to that of the city of Napoleon.

I appreciate the opportunity to provide the subcommittee with a local government perspective on this important issue, and thank you for your time today.

Mr. GIBBS. Thank you.

Ms. Massey, the floor is yours. Welcome.

Ms. MASSEY. Thank you. My name is Karen Massey, and I am the director of the Missouri Environmental Improvement and Energy Resources Authority. Today I am here in my capacity as the president for the Council of Infrastructure Financing Authorities, representing State programs that run the State Revolving Funds. Thank you so much for allowing us to express our views here today.

Sustained Federal funding is essential to realizing our Nation's water quality needs. Clearly, the current level of funding provided is not enough to meet the escalating needs, and we welcome new approaches and tools to generate additional resources. We do believe, however, that the SRF partnership between Federal and State governments should continue as the primary means to assistance for communities in addressing their water quality problems.

Few federally authorized programs have proven as effective in realizing their intended goals. State SRFs have provided a sustainable source of funding to protect and restore our Nation's streams and rivers for over two decades. By using State match, loan repayments, interest earnings, and issuing bonds, the assistance made available to our communities is significantly greater than the initial Federal investment.

The clean water SRF alone has committed over $90 billion for projects for local wastewater infrastructure. As the subcommittee weighs the future of the State SRF program as well as new initiatives, we hope you will keep in mind this record of success.

As the State programs look forward, we have two primary areas of concern, funding and program flexibility. Our ability to meet water infrastructure needs is predicated on the continued funding of the SRF. We understand the need for budget restraint. We simply hope that not too great a share of that restraint is at the expense of the SRF programs.

The success of this program also derives from flexibility. We are concerned about the imposition of new requirements and obligations that are not at the core of the SRF program goals. The SRF

provides loans, not grants. If an SRF loan becomes too weighed down with extraneous requirements, it will cease to be an attractive option for many communities, and clean water goals will suffer.

We must be fully accountable. But excessive oversight or administrative control by EPA stifles innovation and our ability to respond to local needs. Efforts to mandate that a set percentage of funding be set aside for certain types of projects, or that require States to dedicate a set percentage for additional subsidization, fail to recognize that States are in the best position to decide their priority water quality needs.

So what tools or innovations may help achieve clean water goals? As we learned from the Recovery Act, when communities can have access to free or very affordable money, water infrastructure gets built. Ideally, new approaches should provide additional funding at an attractive rate. With those traits, projects that are not being built due to funding constraints may be able to move forward.

One such approach is WIFIA. It seeks to facilitate Federal credit assistance in the form of direct loans and loan guarantees for larger scale water and wastewater projects.

The assistance made available through WIFIA would not approach the very low interest rates of a subsidized SRF loan and in many market conditions borrowing at the Treasury rate, the key benefit of WIFIA, will not provide any advantage over traditional tax-exempt financing which will remain attractive, both from the standpoint of competitive rates and the absence of Federal requirements and conditions likely to be imposed on a Federal loan guarantee.

But there are circumstances in which WIFIA will be very useful. It offers an alternative for projects that are beyond the scope of available SRF funding and for which a Federal guarantee represents the optimal credit option. Viewed as a supplementary program to address specific situations and unique funding challenges, WIFIA should provide a valuable addition to the financing toolbox. The needs of most communities, however, will still be served most effectively by the State Revolving Fund programs.

As the subcommittee explores legislative options, the States hope there will be a focus on a number of noncontroversial issues which will impact the future strength and development of the SRF programs, and those are listed in my written testimony for your consideration.

We also encourage the subcommittee to consider whether proposals seeking to incorporate new goals within the SRF may undermine that core mission of maximizing sustainable financial assistance to communities to develop water infrastructure.

For 25 years, States have successfully worked with their citizens to determine the best approaches to meet unique water quality needs. The recent trend toward additional requirements seems to signal a Federalization of this program. SRFs are being targeted to advance policy goals ranging from green infrastructure and smart growth to better asset management, full cross-pricing, and buy American.

States are beginning to experience resistance from municipalities, especially our smaller communities, which now view an SRF

loan as too complex and too burdensome. A host of new requirements, however well-intentioned, will impede the effort to get communities with the most significant water quality issues moving forward to address those challenges.

Another area of concern involves the corpus of the clean water SRF. Following the first use of capitalization grant funds, all repayments, interest earning, fee revenues, and bond proceeds have been treated as State, not Federal funds. After 25 years of this practice by all 51 clean water SRFs, now the issue is whether Federal controls should be placed upon that corpus. The implications really are significant.

Will this new Federal control extend to and threaten our existing assistance agreements? Investments? And what about the use of State bond proceeds? Will it increase the cost of borrowing for our communities?

These and many more important questions are raised by the expanded Federal control of the State SRF programs. The tremendous success of the clean water SRFs as State-run programs argues for a careful assessment of where this Federalization of the program will lead. We are fearful that the result may be an SRF program that is less productive and a less attractive source of financing in a time of escalating water infrastructure needs.

Thank you for the opportunity to provide the views of the State SRF programs. We do look forward to working with the subcommittee as it continues its work to support water infrastructure development.

Mr. GIBBS. Thank you.

And Mr. Weihrauch, try to speak into the microphone as close as you can because I know it is hard to hear up here. And I do not know if people in the audience can hear or not. So do not hesitate to speak loudly.

The floor is yours. Go ahead.

Mr. WEIHRAUCH. Good morning, Chairman Gibbs and members of the subcommittee. My name is David Weihrauch, and I am the water treatment plant manager for the drinking water utility serving the city of Oxford, Ohio. I very much appreciate this opportunity to offer input on a draft bill the subcommittee is considering, the Water Infrastructure Finance and Innovation Act, commonly called WIFIA.

I am here representing the American Water Works Association, which has done groundbreaking work to define the water infrastructure needs facing towns like Oxford, as well as helping to describe innovative financing tools like WIFIA.

I want to reiterate that the American Water Works Association strongly supports the approach to WIFIA reflected in the draft bill which Chairman Gibbs circulated before the first hearing. We are very excited about such an innovative financing tool, and we urge the subcommittee to see this bill introduced and move through the legislative process as soon as possible on a bipartisan basis without changes that would dilute its value to the Nation's water and wastewater systems.

Recent reports, including AWWA's "Buried No Longer: Confronting America's Water Infrastructure Challenge," provide detailed analysis of our Nation's water, wastewater, and stormwater-

related needs, which total in excess of $2 trillion over the next 25 years.

I do not believe that any serious person disputes that the Nation faces immense water-related investment needs. Nor should anyone believe that simply putting off this investment offers a solution. In fact, as the recent AWWA analysis shows, any temptation to delay needed investment presents a stark choice: Make the investments on time or accept deteriorating levels of water service, along with sharply higher investments when the time comes at which the replacement of deteriorated assets simply cannot be put off any longer.

I would be remiss if I did not take this opportunity to address a number of key questions raised in the first hearing.

First, there was a question about whether WIFIA should be directed to or through the State Revolving Funds. The American Water Works Association believes that would be a very bad idea, for a number of reasons. Most importantly, WIFIA is designed to complement the SRF and to address the needs of very large projects that the SRFs simply cannot address. Running WIFIA through the SRFs defeats WIFIA's whole purpose, in a very real sense.

In addition, many States have either legislation or policy that prevents them from offering SRF support to very large projects, and about half the States have constitutional or legal restrictions against supporting investor-owned utilities through the SRFs. Large systems need a source of low-interest financing, and the customers of investor-owned utilities deserve to benefit from low-cost financing, just as other Americans do. Many SRFs cannot provide that.

Equally important, tying WIFIA to the SRFs would reduce the amount of support available for these larger water projects. That is because each State would have to be guaranteed a share of the funding, causing the resources available to WIFIA to be systemically divided among the States.

Rather than lending to large projects of national or regional significance, funds would be allocated based on criteria selected by the States, and without a doubt, States would need to take money off the top of WIFIA, as they do the SRFs, for administration and other purposes.

The bottom line is that every hand that touches the WIFIA program will add a layer of administrative complexity and cost. All of that would reduce the amount of low-interest loans that could be delivered to water projects, and we cannot support it.

Fortunately, the draft bill does provide for States and smaller water systems to directly benefit from the WIFIA program. States may aggregate a number of smaller projects into a WIFIA application. This has at least three noteworthy advantages.

First, it essentially allows States to leverage their SRF capital base. Second, it allows smaller projects to benefit from low Treasury rates in the same way that larger projects do. And third, it allows States to move larger projects and pools of smaller projects out of the SRF applicant pool and into the WIFIA pool, thereby reducing competition for SRF funds.

A related question that arose at the last hearing concerned whether WIFIA would have the effect of taking money away from the established State Revolving Fund programs. The answer to that question is ultimately in your hands, but we think the answer should be a resounding no. WIFIA neither needs to be nor should be funded at the expense of the SRFs.

As I noted a moment ago, WIFIA was explicitly designed to operate as a complement to the SRFs programs, which are highly effective and should be fully funded. WIFIA is designed to address a problem that the SRFs cannot effectively address, namely, the need for lower cost financing for larger projects of national or regional significance. What we need is a toolbox that includes both the SRF programs and WIFIA. Both need to be adequately funded.

In summary, Mr. Chairman and members of the committee, the American Water Works Association strongly supports the draft bill as written. AWWA stands ready to help you in any way it can in securing the earliest possible passage of this legislation.

Thank you for addressing this important issue.

Mr. GIBBS. Thank you.

Mr. Howard, welcome. The floor is yours.

Mr. HOWARD. Good afternoon, Chairman Gibbs. I am going to be quickly going through the first part of my written testimony, and then walking through very quickly a presentation that I have brought with me.

Good afternoon, Chairman Gibbs, Ranking Member Bishop, and members of the subcommittee. I thank you for the opportunity to testify today. My name is Steve Howard, and I am a director at Barclays Bank PLC, based in New York. I have more than 25 years of experience financing a broad range of infrastructure projects for public and private sector clients across the country. My project finance experience spans all sectors, including water, wastewater, solid waste, environmental transportation, and social infrastructure.

Today we have been invited by the Chairman of the Subcommittee on Water Resources and Environment to testify on innovative financing approaches to community water infrastructure approaches. Our testimony today will focus on accommodation of public and private funding investment solutions, coupled together will foster local communities to provide ongoing financing for water projects.

If we can go to the second slide in my presentation. You will note that we basically have three approaches to financing water infrastructure projects. At the top of the chart is tax-exempt bonds, and there are two subcategories there, governmental purpose bonds, which limit private participation, and tax-exempt private activity bonds, which allow private participation in equity investment alongside the issuance of tax-exempt bonds.

Second major category is taxable bonds, which is unlimited for this infrastructure but tend to be higher cost. Then last but not least is private equity, which can be used in conjunction with tax-exempt private activity bonds as well as taxable bonds.

If we can then go to slide 5 in my presentation—keep going—so this slide, this shows just a high-level view of how a private project

financing can be structured in conjunction with a water purchase agreement with a public regional water authority.

You see in the middle of the chart the private project company, and that is the basket into which all of the private contracts flow through. Lower left-hand corner is the private investors' infrastructure funds; development companies, private equity investors, would fund equity into the private project company that would in turn enter into a water purchase agreement with the regional water authority you see in the left-hand box in the middle of the page.

The key point here is that the regional water authority still maintains the interface with the ratepayers and controls the rates that the ratepayers pay. That regional water authority in turn negotiates the level of compensation that goes to the private company for operation and debt service on the project.

If you go over to the right-hand side of the page where it says "Issuer," that is typically a governmental conduit issuer which serves as the issuer of the tax-exempt bonds through the trustee to the bondholders in the upper right-hand box in the middle of the page.

The key thing here is that the tax-exempt private activity bonds flow through the trustee, a governmental conduit issuer; are loaned to the private company, who in turn provides a wholesale water delivery service to the governmental regional water authority that in turn controls the rates for the ratepayers.

If we can go to the next slide, what I like to do is draw an analogy with the solid waste sector, municipal solid waste sector, that many of you know back in the 1980s faced a serious infrastructure investment deficit, where we were coming off of an era of smoke-belching incinerators and leaking, open-burning dumps.

The U.S. Congress in the late 1970s and early 1980s responded in part by providing for the availability of tax-exempt private activity bonds to help finance the new investment in state-of-the-art infrastructure across the country. As a consequence, about $20 billion of private activity bonds were issued, which represents about 40 percent of the total debt that was issued for municipal solid waste infrastructure by both public and private entities over about a 30-year period.

If you go to the next slide, you can see in this slide the blue bars represent tax-exempt governmental purpose bonds that were issued by cities, States, and local governments for publicly owned waste facilities. The red bars represent the issuance of tax-exempt private activity bonds. That is about 40 percent, as I said, of the total debt invested in the solid waste infrastructure over that period of time.

And the red bars really represent the partnership between the public and the private sector through a variety of different contracting methods, ranging from design/build agreements to design/build/operate, and design/build/operate and finance.

I personally was involved in about $10 billion of public-private partnership investments through that era, and the good news is you do not hear about any of those projects today because they are all functioning properly and serving the purpose that they were originally intended to.

Can we go to, then, several slides back? It will be slide 10, which shows what has happened in the water infrastructure. Keep going.

Keep going. No, you are going the wrong direction. And we will take a look compared to what is—keep going, several more—OK.

This is what has gone on in the municipal water and wastewater sectors since the late 1980s. You see the blue, again, is governmental purpose bonds, and the red, which you can barely see at the bottom, is private activity bonds. And in this case, private activity bonds represent only 1 percent of the debt issued for municipal water and wastewater.

Now, this is a much larger sector than solid waste, by multiples. It is like a 10 times larger investment in water and wastewater than in municipal solid waste. But the key thing is that the restriction on the use of private activity bonds in water and wastewater has represented a significant limitation to the ability of the private sector to partner with the public sector through a variety of different contracting arrangements to invest in water and wastewater projects.

And it is our expectation that, over time, were the limit on private activity bonds to be reduced or eliminated entirely, that we would see the portion of this chart with the red bars would gradually increase.

I think it is important for the committee to understand that currently there is an excess of private activity bond cap available across the country because the housing sector has basically shut down, where the bulk of private activity bonds cap has traditionally been allocated. We expect that this is a temporary phenomenon and will gradually, over time, revert to the situation that existed before 2008, where the availability of private activity bond cap for water projects will become severely limited.

All of these projects, as you I am sure can appreciate, take a very long time to develop and implement. So there needs to be certainty over time with respect to the availability of these financing mechanisms. We do not expect that there will be any significant effort to pursue public-private partnerships in this sector until there is clarity about the availability of private activity cap in the future.

Thank you very much.

Mr. GIBBS. Quickly, before we go on, I just—that last chart up, can you bring that last chart back up?

Mr. HOWARD. Sure.

Mr. GIBBS. I just noticed on the—can you just comment where it says, "Taxable Build America Bonds"?

Mr. HOWARD. Yes.

Mr. GIBBS. And it looks like there must have been a change made in 2009 or 2010.

Mr. HOWARD. Yes. That is a good question. As you may know, in 2009 and 2010 there was a program set up under the Recovery Act to allow municipalities to issue taxable Build America Bonds. These were effectively taxable governmental purpose bonds with a direct Federal subsidy of 35 percent of the interest. They were not private activity bonds and did not allow for private investment or partnering.

Mr. GIBBS. OK. So I am assuming that was temporary because it was stimulus funds?

Mr. HOWARD. That was temporary. That program has shut down. You will notice in—the chart is not clear, but none of those have been issued since 2011.

Mr. GIBBS. Yes. I see. OK. Thank you.

Mr. Dornbirer—did I say that right?

Mr. DORNBIRER. Dornbirer.

Mr. GIBBS. Dornbirer. OK. Welcome.

Mr. DORNBIRER. Thank you. Good morning, Mr. Chairman, Ranking Member Bishop, members of the committee. As sector vice president of CoBank's Energy and Water Services Division, I manage a portfolio of over $1 billion of water and solid waste loans. For simplicity, the terms "water" and "wastewater" are used interchangeably in my testimony.

CoBank is a national cooperative bank serving vital industries across rural America, and it is the largest U.S. bank lender to the water utility industry. CoBank has over 23 years' experience providing a variety of financing structures for water systems, including lending alongside State and Federal agencies and using Federal guarantees from the USDA. I was asked to testify this morning to provide a project finance 101 overview for the committee.

To begin with, project finance is not the same thing as financing projects. When I talk about project finance, I am referring to the long-term financing of discrete assets of a water infrastructure owned by a single-purpose project company. This alternative takes into account the entire life cycle cost of the project, not just the short-term focus of its financing.

If a water utility needs to update its system to achieve a compliance mandate or improve its infrastructure, project finance is an innovative way for water systems to access dependable funding to achieve its goals. The benefit of project finance lies in its flexibility in the proper allocation of the risks of that project among the project parties best suited to manage them. Project finance is used extensively in the international water sector, and in this country for energy, power, and transportation projects.

Here I have a chart depicting a generic project finance structure. At the beginning stages of the deal, the municipality and the private equity sponsor form a public-private partnership. The project company then is formed to develop, build, and own the project.

The project company can be wholly owned by one or more private equity sponsors, or the municipality could join in the direct ownership of the project. By forming a standalone project company, all the contract parties can look only to the project company for the enforcement of contracts. This limits the liability of the project sponsor as well as the municipality.

From the point of formation of the project company, all the work begins with negotiating and executing the contracts that give the project life. Think of each contract or subset of the boxes in the chart as a piece of the puzzle, each one being integral to a complete project.

The heart of a project finance deal is the DBOF agreement, which stands for design, build, operate, and finance, between the project company and the municipality. The DBOF lays out who is responsible for what, such as specifications of the plan, the delivery

schedule, revenues, permits, dispute process, design changes, feature expansion, and transfer of ownership.

The project company's revenues come from the user fees determined by the municipality's rate-making process. In addition to rate-setting, the municipality may also agree to be responsible for those operating costs of the plant that it can control.

If the DBOF is the heart of the project, rate-setting is the lifeblood. The source of project revenue should be transparent and easily modeled in order to obtain the most attractive financing terms benefitting the project, and subsequently, the ratepayers.

The other major components of the project finance structure include the engineering construction contract, the operation and maintenance agreement, and the credit agreement, which is between the lenders and the project company. The lending group can include banks, bondholders, either taxable or tax-exempt, and/or Government agencies.

The lender's role is to underwrite the loan which, together with the sponsor's equity dollars, fund the total costs of constructing and starting up the project. The lenders rely solely on the contracts executed by the project company and the cash flows generated by it.

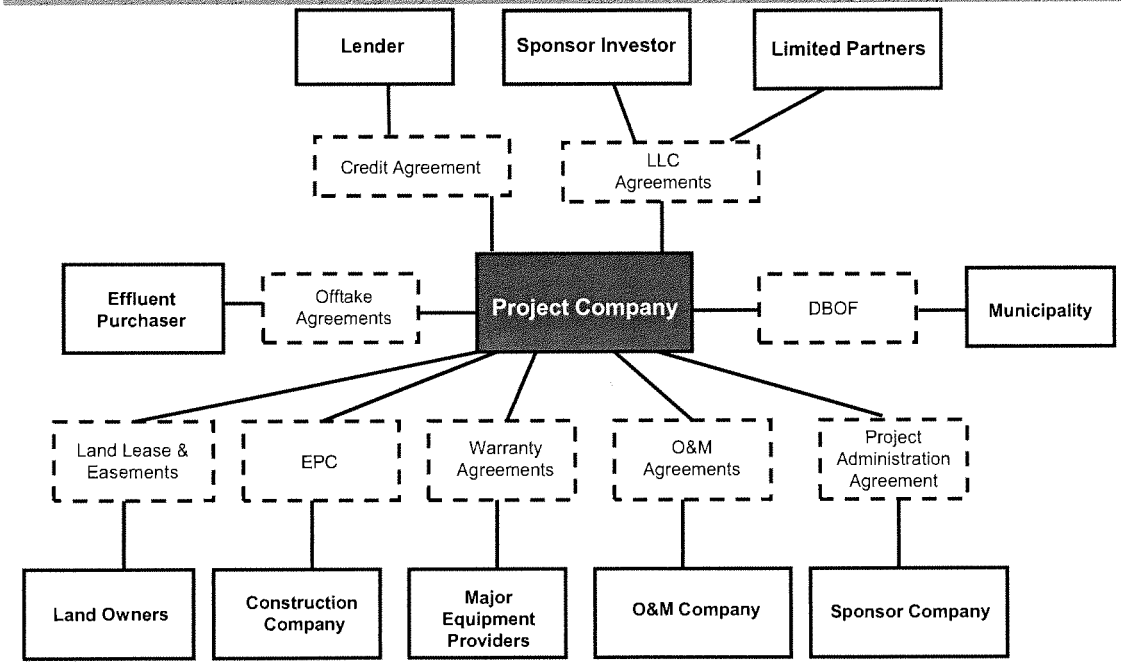
The various project contracts are designed to provide and protect those cash flows. The flexibility the project finance provides allows a water utility to accomplish its goal of upgrading the system in a timely fashion while ceding most of the risks of that undertaking to third parties.

I hope my brief overview, combined with my written testimony, provides the committee with an understanding of how project finance works. CoBank recognizes the need for a variety of financing tools to update our Nation's infrastructure. Project finance is just one viable tool that can tap private capital, and thereby leverage Government resources to accelerate the achievement of that important goal.

I look forward to any questions you may have. Thank you.

[The charts from Mr. Dornbirer's overview follow:]

Key Stake Holders and Contract Structure



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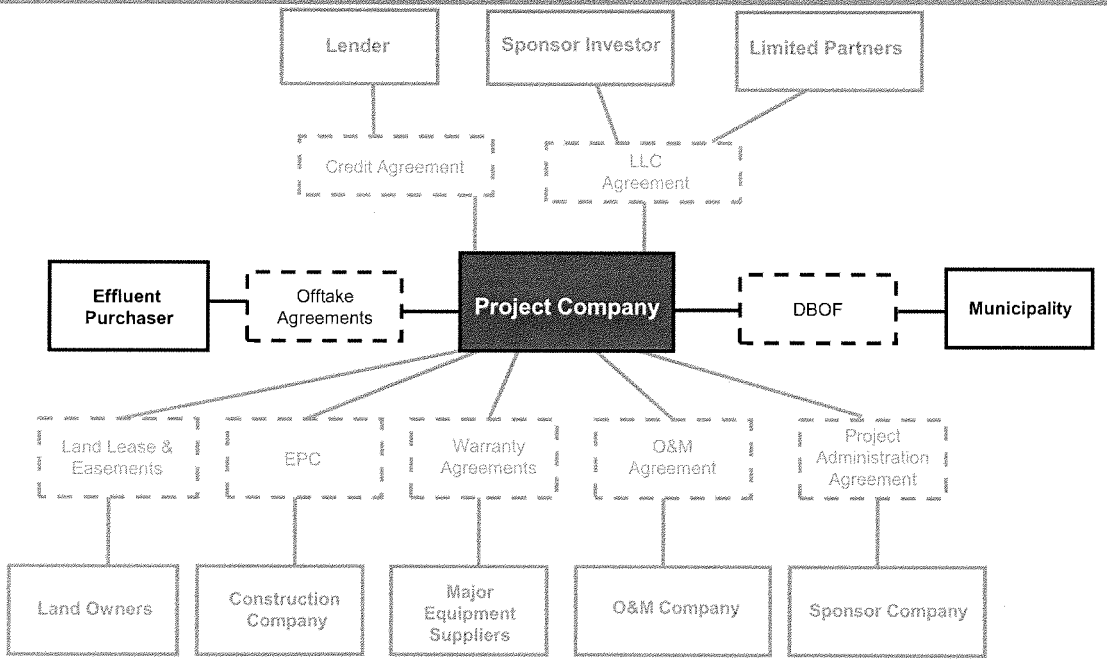
DBOF Agreement



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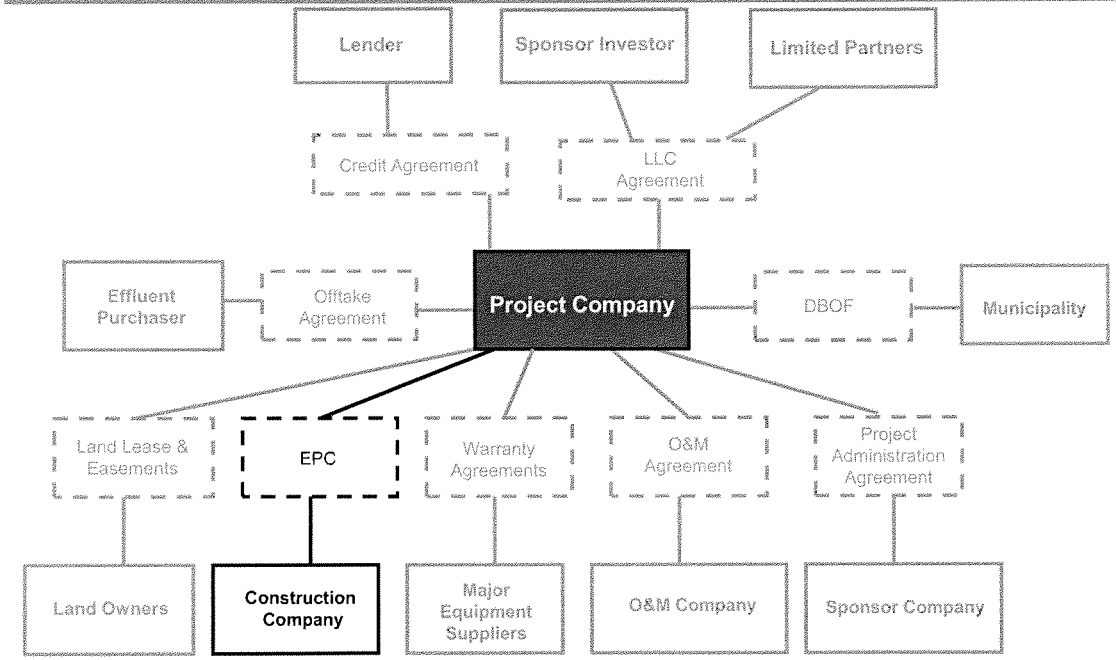
EPC Contract (DBO Agreement)



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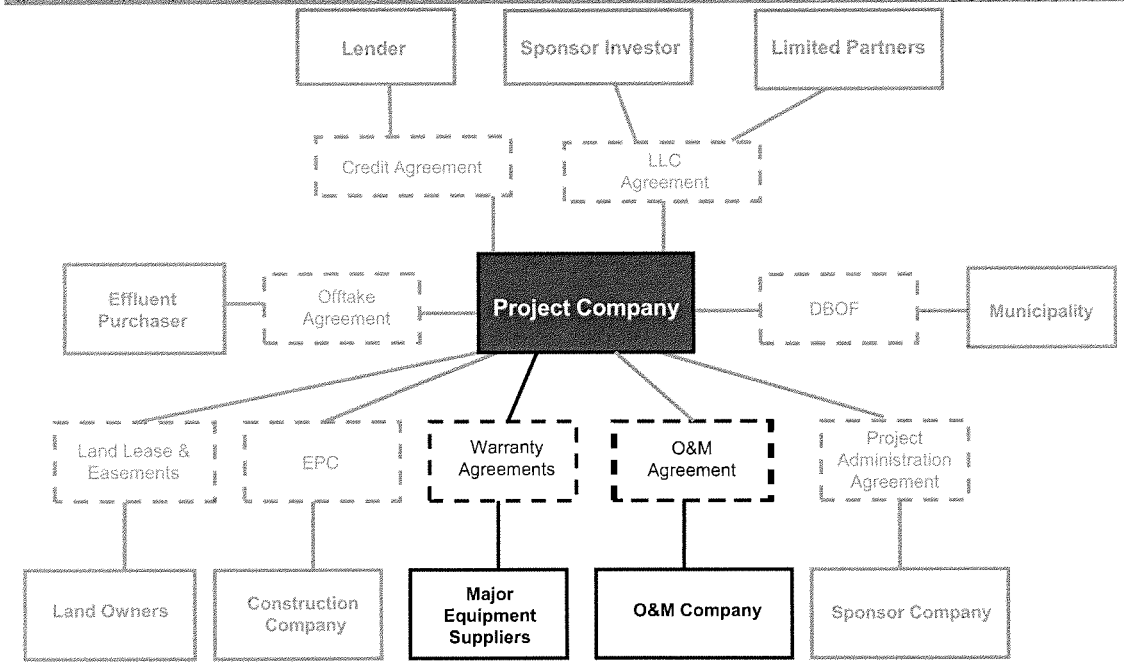
O&M Agreement (DBO Agreement)



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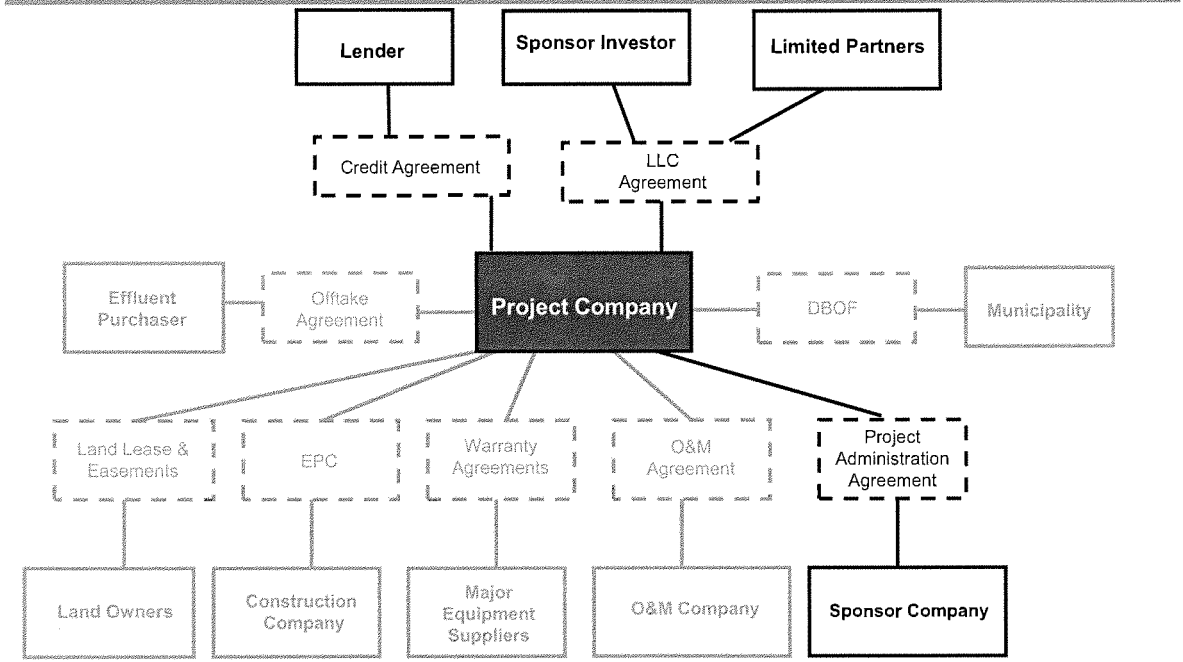
Credit Agreement



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Mr. GIBBS. Thank you.

Mr. Grumbles, welcome. The floor is yours.

Mr. GRUMBLES. Thank you, Mr. Chairman.

Like the NCAA Sweet Sixteen, this panel seems to be dominated by Ohio interests, and that is not necessarily a bad thing because I am hearing testimony that is insightful——

Mr. GIBBS. I think there are three teams from Ohio still in it. Right?

Mr. GRUMBLES. Yes. That is right. And the perspectives I am hearing so far are all national perspectives, and this is a national issue. It is a national crisis and an opportunity. I want to thank the members, Mr. Chairman, Ranking Member Bishop, Congresswoman Napolitano, for your leadership in water over the years. This really is an important opportunity. It is great to be before you again.

I am Ben Grumbles, president of Clean Water America Alliance. It is a 501(c)(3), an educational nonprofit, that was created 3 years ago that is unique in its membership and structure. It embodies drinking water, wastewater, stormwater, groundwater, source water protection, agriculture, energy interests, and everyone shares the bond of working together towards a more integrated and sustainable approach to national water policy.

I cannot tell you a more pressing and urgent issue than the one you are focusing on today, and that is financing infrastructure to sustain America's most precious liquid asset. Clean Water America Alliance does not have official positions on the bills before you. We have endorsed a green infrastructure principles statement. We also believe strongly in some key points and principles that are important to your deliberations.

As you approach the financing issue, which is such an urgent one, Mr. Chairman, I would emphasize valuing water. I would emphasize partnering for water. I would emphasize greening, and meshing green with gray infrastructure. And finally, I would emphasize connecting all the dots.

On the valuing of water, as was indicated in the extensive survey over a year ago by ITT Water (now Xylem), the Nation, the ratepayers, the citizens of the Nation, see water as an emerging national crisis. There are, every day in America, 650 water main breaks, as AWWA would tell you, 240,000 every year.

You know the problem. The solutions have to start with helping America understand and using your congressional tools to launch this campaign on the value of water. And we think that is a critically important one. Moving towards full-cost pricing, which is a local issue, but also building the tools and the public sentiment to really move forward—the country deserves clean and safe water for the future.

The second point I want to emphasize is the partnering. Mr. Chairman, water is not just simply a commodity. It is a lifeblood asset that all of us should have. It is very important that this public asset be maintained and sustained.

And what I like to call as the public rust doctrine is my concern that these public assets, these public infrastructure systems, will fall into rust and decay if we do not use innovation and allow communities to bring in, when the communities want to do so, the pri-

vate sector through financing, through operating, through managing—it is not always all or nothing about privatization and selling off of assets.

And our organization believes strongly that private sector entrepreneurs and private sector involvement is important, that there be a partnership. The private activity bond legislation is a good example of progress. Your efforts in the WIFIA legislation to integrate more private sector perspectives is also an important one.

The other aspect I want to emphasize is greening. Our organization, Clean Water America Alliance, truly believes that one of the ways to save money, beautify communities, save energy costs, is to look for greening infrastructure, greening using trees, parks, connecting with the land and water conservation fund, parks and recreation districts, and managing watersheds. As you know and as New York City just recently demonstrated this week, billions of dollars invested in green infrastructure will save even more money and help the community.

The other point I want to emphasize, Mr. Chairman, is that WIFIA has very good elements to it. It is important to be part of the toolbox on the table. It is also very important to work through the logistics, the specifics, so as not to undermine a program that this committee was very instrumental in in 1986 and 1987, the State Revolving Fund. So that is a key part of it.

Regarding Congressman Bishop's legislation, which has broad support from many other Members, it is a very important step forward. It includes needed elements of the debate in financing legislation.

On the infrastructure trust fund approach, our organization believes that dedicated, sustainable funding is absolutely necessary. I personally would say that we need a national strategy on dedicated funding. We recognize that it is a recipe for disaster if some type of new fund is set up that leads to a Federal tax and decisions are made about local spending in Washington, DC. But it really is important, as your bill does, to keep that debate going about funding dedicated towards local water and wastewater infrastructure.

Mr. Chairman, thank you for bringing together so many experts and tackling this issue like you are.

Mr. GIBBS. Thank you.

Mr. Schmitt, welcome, and the floor is yours.

Mr. SCHMITT. Chairman Gibbs, Ranking Member Bishop, and members of the subcommittee, my name is Ryan Schmitt. I am the owner and president of Petticoat-Schmitt Civil Contractors in Jacksonville, Florida, and I am the current chairman of the board at NUCA. We are the Nation's largest association representing utility and excavation contractors. We are the men and women that fix those water breaks and prevent those water failures that Mr. Grumbles spoke about.

According to the EPA, hundreds of billions of dollars are needed to repair America's underground infrastructure, yet the lack of available public dollars has obstructed significant progress to address these needs. I can tell you that in my State of Florida, our company struggles for work, while many water systems are clogged with tuberculation and desperately need replacement.

The water infrastructure market and companies working in it are also in serious trouble. In addition to the cuts in Federal funding, State budgets have been hit hard due to lowered revenue from property taxes. The lack of public dollars has kept the construction industry on the sidelines. In my State, almost half the construction workforce continues to be out of work.

Although water and wastewater projects are generally recognized for their effectiveness in enhancing public health and environmental protection, the economic benefits that result from this work are often overlooked. In a 2009 Clean Water Council study, it showed that a billion-dollar investment in water and wastewater infrastructure resulted in the creation of up to 27,000 jobs, $3.46 billion in demand for products and services in other industries, and $1 billion in generation of household income. Importantly, each billion invested also generates approximately $82.4 million in local and State tax revenue.

When our company does land a project, I see the ripple effect firsthand. The positive economic impact affects the financial health of our company, our employees, our vendors, and all related companies all the way down to the burger stand next to the job site.

NUCA supports a wide range of legislative solutions to address America's infrastructure challenges. But because of the reduced Federal dollars available over the past several years, our association has recently focused on opportunities for more private investment and public-private partnerships. The Sustainable Water Infrastructure Investment Act would lift water and wastewater projects from the State volume cap on private activity bonds, thereby encouraging us each of more public-private partnerships in this market.

Private activity bonds use private capital in lieu of public debt, and shift the risk and long-term debt from the municipality to the private owner. The tax-exempt status of the bond provides lower cost financing for investors, which translates to lower costs for local governments. Lifting the cap that fund these projects would generate an estimated $5 billion in annual private investment at a very low cost to the Federal Government.

NUCA has also been a long supporter of the EPA's State Revolving Fund, or SRF programs. Therefore, we appreciate the introduction of the Water Quality Protection and Job Creation Act of 2011. The bill, authored by Congressman Bishop, would authorize $13.8 billion over the next 5 years for EPA's Clean Water State Revolving Fund, and $2.5 billion for combined sewer overflows.

NUCA also supports the introduction of other legislation pending in this subcommittee, known as WIFIA, that will offer credit assistance through the use of loans and loan guarantees to complement traditional financing programs for water and wastewater projects.

Establishing a national infrastructure bank to finance wastewater projects should also be evaluated. Levels of Government oversight, structure of the bank, revenue sources, and opportunities for private sector participation are all issues that must be addressed while considering establishment for such an entity.

While there continues to be a growing national conversation about the establishment of a dedicated source of revenue through

a new clean water trust fund, NUCA is supportive of the concept in the long term after many issues are fully vetted and addressed.

To sum up, there are several alternatives that, if crafted appropriately, could put the underground utility and excavation industry back to work, create scores of jobs in countless American industries, and expand local tax, bases while repairing and rebuilding the Nation's crumbling infrastructure.

NUCA believes the congressional agenda should specifically address removing the State volume cap on private activity bonds, reauthorizing the SRF program, and establishing new options for loans and loan guarantees through WIFIA.

Thank you for the opportunity to testify before the subcommittee today, and I look forward to answering any questions you might have.

Mr. GIBBS. Thank you.

Ms. Broaddus, you are welcome, and the floor is yours.

Ms. BROADDUS. Good morning, Chairman Gibbs, Ranking Member Bishop, and distinguished members of the Water Resources and Environment Subcommittee. Thank you for inviting me to testify today.

I am Lynn Broaddus, and I direct the environment program at the Johnson Foundation at Wingspread in Racine, Wisconsin. The Johnson Foundation's mission is to be a catalyst for positive and lasting change through leading edge convening to create healthier environments and communities.

I am here today to testify about a report released by the Johnson Foundation titled, "Financing Sustainable Water Infrastructure." This report lays out a road map for innovative ways to finance our Nation's water infrastructure for the 21st century and beyond.

It brought together a group of experts from water utility managers, the investment community, NGOs, and other stakeholders. This effort was conducted in collaboration with American Rivers and Ceres as part of the Johnson Foundation's ongoing freshwater initiative known as "Charting New Waters."

The "Financing Sustainable Water Infrastructure" report examines the operational, institutional, and market-related challenges that our water and wastewater utilities need to overcome if they are going to continue to support our people and industries into the next century. I would like to highlight three points from the report.

First, the water utility business model is changing. Historically, water and wastewater utilities have functioned as monopolies. Now there are innovative technologies that give customers more options. For example, Google is recycling gray water to cool its data center outside of Atlanta, eliminating the demand for millions of gallons of treated drinking water.

The second point I would like to make is that we are likely to see more consolidation in the industry. In the future, we will see wastewater, water supply, stormwater, and flood waters managed as one system rather than as separate systems that often have conflicting goals.

And my third point is that these changes will drive the need to consider a number of innovative financing strategies, including: expanding the pool of water service funding to include nontraditional revenue sources, such as energy capture and nutrient recycling;

avoiding future costs by incorporating water sustainability into other forms of infrastructure, such as our roads and buildings; and accounting and paying for ecosystem services to expand utilities' debt capacity, and link payments to watersheds as lower cost alternatives.

Many of these recommendations are encapsulated in the bills put forward by both Chairman Gibbs' WIFIA legislation and Ranking Member Bishop's H.R. 3145. While the Johnson Foundation cannot offer any specific positions on legislation, I can tell you generally about how these proposals fit into our report's recommendations.

Generally, I think the two bills, while certainly different, share a lot of common and important ground. Both the chairman's and the ranking member's bills cover many of the necessary recommendations contained in the "Financing Sustainable Water Infrastructure" report.

However, our report also emphasizes the importance of flexibility, recognition of new technologies, and changing conditions in the water business in order to maximize the impact and effectiveness of new financing mechanisms.

With regard to WIFIA, we need to make sure that any program allows for the ability to finance smaller, more incremental projects, especially for smaller communities. If financing mechanisms are available only for mega-projects, then that is what we will get, even when a smaller solution may have been the more cost-efficient one.

Regarding Congressman Bishop's bill, we are pleased to see that it recognizes the inherent benefits of smaller projects and new technologies. Developing smaller solutions that are tightly focused can avoid some of the problems we currently see, where communities can no longer afford to maintain larger facilities because of population shifts, reductions in per capita water use, and other factors.

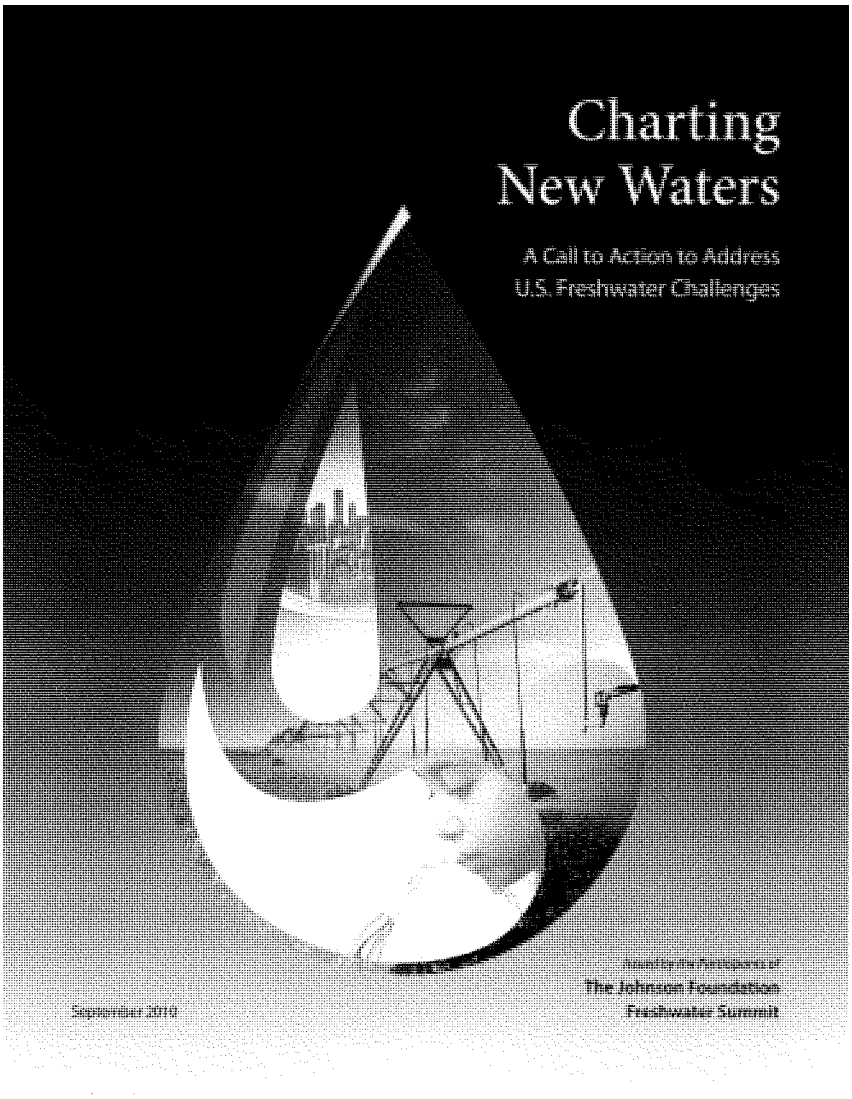
I would like to note, however, that the experts we convened felt that if there is grant funding for water infrastructure, it should be done in a way that does not hide the true costs of water and wastewater services.

In closing, I believe that we can bring about a more cost-efficient and effective system for the long term if we tackle not only how to maintain the existing system, but how to improve it so we can more effectively meet the needs of our shifting population and water resources relative to the environmental, technological, social, and demographic changes we are expecting.

I would also like to ask unanimous consent to enter the "Charting New Waters" report and the "Financing Sustainable Water Infrastructure" report into the record.

Mr. GIBBS. So ordered.

[The preamble to "Charting New Waters" and the executive summary to "Financing Sustainable Water Infrastructure" follow. These reports can be found in their entirety online at the Government Printing Office's Federal Digital System (FDsys) at http://www.gpo.gov/fdsys/pkg/CPRT-112HPRT74562/pdf/CPRT-112HPRT74562.pdf. Click on "Bookmarks" in the left-hand navigation panel to select either report.]


Charting
New Waters
A Call to Action to Address
U.S. Freshwater Challenges
Issued by the Participants of
The Johnson Foundation
Freshwater Summit
September 2019

The Johnson Foundation
AT WINGSPREAD

Conferences that Inspire Solutions

It has been said there are two ways to achieve change — through crisis or through leadership. Freshwater is too important to our ecosystems, communities and national security to wait for a crisis.

In the fall of 2008, The Johnson Foundation at Wingspread initiated *The Freshwater Forum* with one goal in mind: to ensure the sustainability and resilience of our nation's freshwater resources. This series of conferences was unique and unprecedented, engaging a broad range of leading national experts to discuss critical dimensions of freshwater issues including: the impacts of climate change on freshwater resources, infrastructure and the built environment, agriculture and food production, the water/energy interface and public health.

These conferences set the stage for *The Johnson Foundation Freshwater Summit* held June 9, 2010, at which leaders from business, nongovernmental organizations, agriculture, academia, government, foundations and communities convened to develop a set of consensus recommendations to address U.S. freshwater challenges. From their diverse perspectives and collective insight, an important call to action toward sustainable and resilient U.S. freshwater resources has emerged.

The Johnson Foundation at Wingspread brings no preconceived ideas nor fixed agendas to this or any issue on which we focus. Our conferences are intimate and distinctive in the diversity of perspectives brought to the table. Dialogue is candid, collegial and authentic in an environment that fosters the trust and collaboration needed to identify innovative yet broadly supported solutions that have impact.


Alliance
Environment


GREEN
FOR ALL


PNM Resources


American Rivers
Thriving By Nature


Iowa Soybean
ASSOCIATION

RioTinto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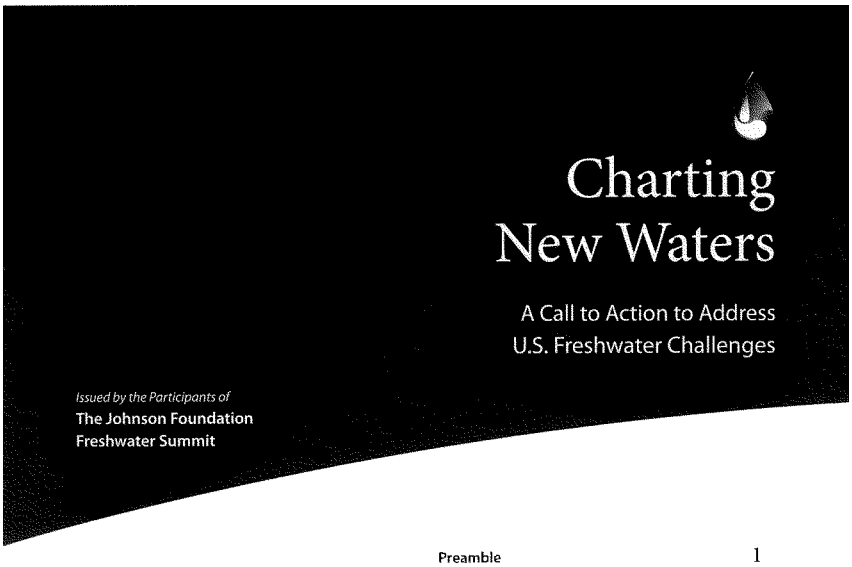

Charting New Waters

A Call to Action to Address U.S. Freshwater Challenges

Issued by the Participants of
The Johnson Foundation Freshwater Summit

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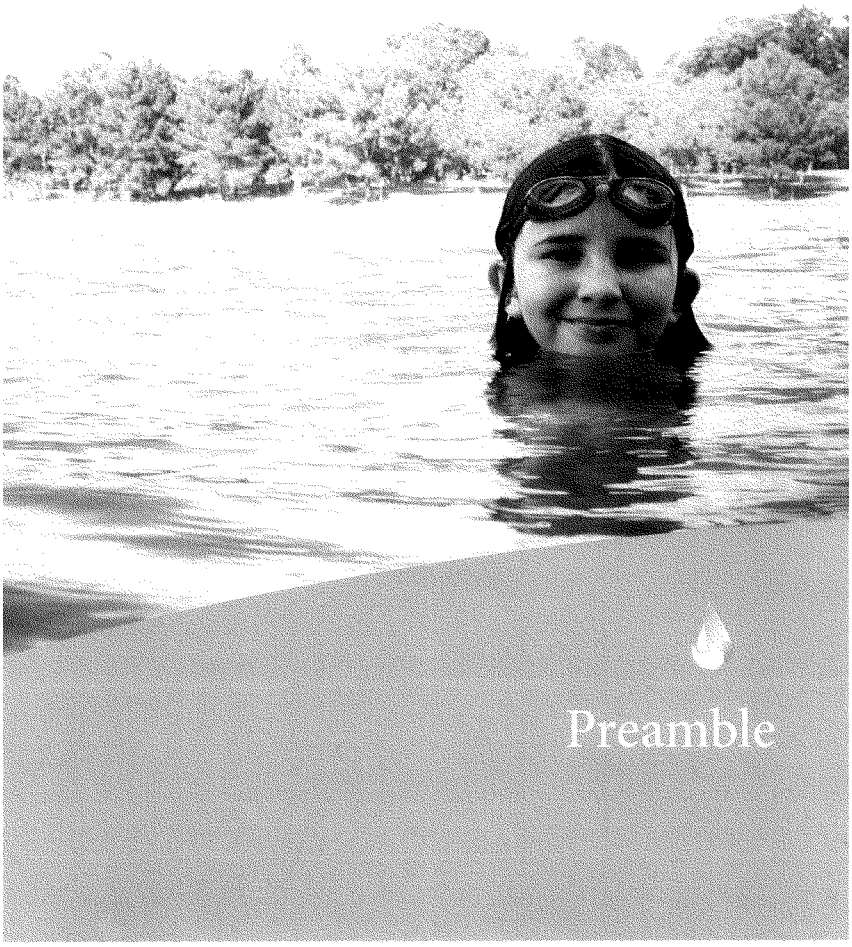
Preamble

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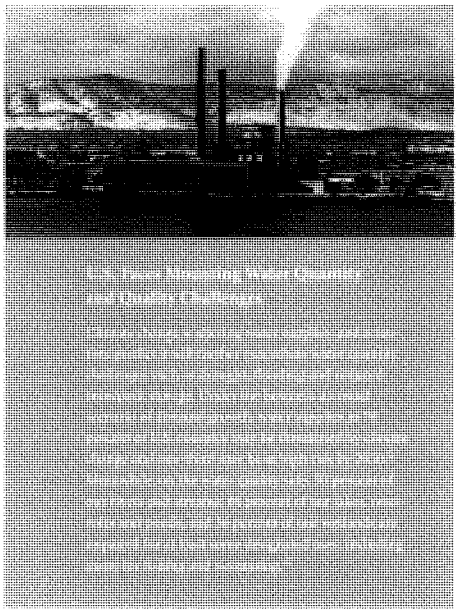
Charting New Waters: A Call to Action to Address U.S. Freshwater Challenges represents the culmination of an intensive collaborative effort that began in 2008.

Building on its long history of catalyzing environmental and community solutions and approaching issues without preconceived ideas or fixed agendas, The Johnson Foundation at Wingspread convened a wide range of experts in a series of working session conferences to better understand and bring national attention to the myriad challenges facing United States freshwater resources, and the most promising solutions to address them. Collectively entitled *The Johnson Foundation Freshwater Forum*, the sessions reached across disciplines and interest group affiliations and involved more than 100 experts who approach freshwater issues from different vantage points, including climate science, municipal water management, ecosystem protection, agriculture and food production, energy generation, manufacturing, public health and more. The questions posed to these experts revolved around what it will take to achieve a sustainable and resilient freshwater system by the year 2025, the approximate time it will take for today's children to enter adulthood. On June 9, 2010, leaders representing business, nongovernmental organizations, agriculture, academia, government, foundations and communities convened at *The Johnson Foundation Freshwater Summit* to build on the findings of *The Freshwater Forum* conferences and chart a new course for the future of U.S. freshwater resources.

Throughout *The Freshwater Forum* sessions, there was broad consensus among participants that our current path will, unless changed, lead us to a national freshwater crisis in the foreseeable future. This reality encompasses a wide array of challenges – water pollution and scarcity; competing urban, rural and ecosystem water needs; climate change; environmental and public health impacts; and a variety of economic implications – that collectively amount to a tenuous trajectory for the future of the nation's freshwater resources.

While the nation has made much progress over the past century in addressing freshwater challenges, many still persist. Some challenges are acute and obvious. The severe drought that struck the southeast in 2007 left Georgia, Alabama and Florida locked in an interstate conflict over the management of Lake Lanier.[1] In California's Central Valley, a drought, economic recession and legal rulings to reallocate water supplies to protect ecosystems resulted in water management decisions that contributed to lost jobs and revenue for the region's agriculture industry in 2009. Competition among agricultural, urban and environmental water uses in the Central Valley remains a contentious situation. The 1993 Cryptosporidium outbreak in Milwaukee – which contaminated the city's drinking water supply – left more than 400,000

residents ill and an estimated 69 people dead and resulted in an estimated $96.2 million in medical costs and productivity losses.[2] The U.S. Environmental Protection Agency (EPA) estimates that there are 240,000 water main breaks per year in the United States. System breaks tend to increase substantially toward the end of a system's service lifespan, which is evident in the Midwest where large utility breaks increased from 250 per year to 2,200 per year over a 19-year period.[3] In 2007, the Washington Suburban Sanitary Commission reported 2,129 breaks in Montgomery and Prince George's County, Maryland – a 90-year record.[4] The U.S. Geological Survey estimates that U.S. water distribution systems lose 1.7 trillion gallons of water per year at an estimated annual cost to the nation of $2.6 billion.[5]

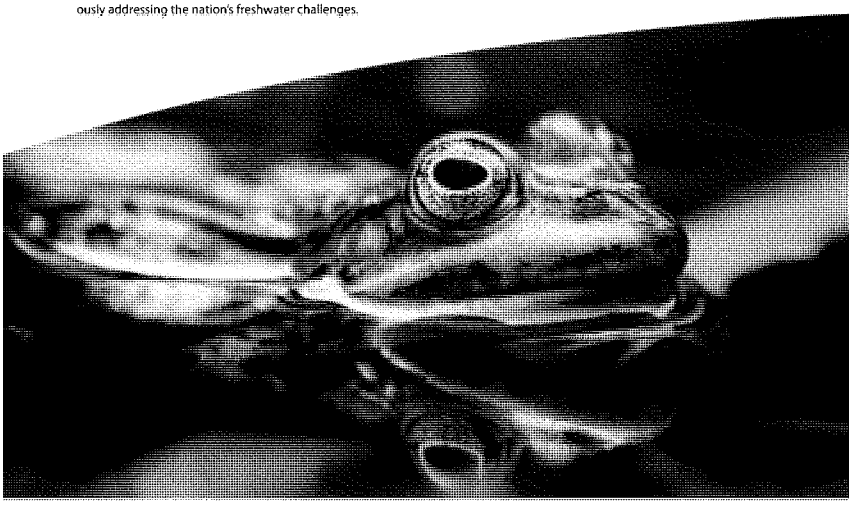


Other challenges are more subtle and chronic. The increasing presence of endocrine-disrupting chemicals in our rivers and drinking water supplies is an emerging concern and the suspected cause behind 80 percent of male bass in the Potomac River now exhibiting female sex traits. More than 90 percent of the five million people in the Washington, D.C., metro area get their drinking water from the Potomac, yet we have a poor understanding of the concentrations and long-term human health impacts of endocrine-disrupting chemicals in drinking water.[6] The United States leads the world in number of crayfish species, but half are in jeopardy, and 40 percent of freshwater fish and amphibians are at risk.[7] The slow but steady depletion of the Ogallala Aquifer (i.e., the High Plains Aquifer), the main source of groundwater for irrigating crops in America's breadbasket, has already left parts of Texas without local water supplies.[8] Moreover, a 2003 survey by the U.S. General Accounting Office revealed that at least 36 state water managers expected to experience water shortages in their states by 2013.[9]

Meanwhile our growing population and changing environmental conditions continue to drive the nation toward inevitable and difficult freshwater management decisions. Many challenges will center on balancing municipal, rural and ecosystem supply needs. We must ensure the long-term viability of safe, affordable and efficient food production while also meeting municipal and industrial water needs. We need to reduce the water demands and impacts of energy generation while continuing to produce enough energy to sustain our economy. We must work to mitigate the causes of climate change and to adapt to its impacts on the hydrologic cycle, which pose serious risks to freshwater supply and quality across large areas of the nation.[10]

Freshwater Forum participants emphasized the broad scope and urgency of freshwater problems in the United States, while underscoring that we are dealing with 21st century freshwater problems using 20th century strategies and technologies, and falling short. On a more optimistic note, the *Forum* deliberations also made it clear that solutions to most, if not all, of our freshwater challenges are within reach. The Johnson Foundation believes this is indeed the case, and that those solutions are more likely to be found and implemented when smart, good-willed people with diverse expertise attack complex problems collaboratively. *The Freshwater Forum* affirmed this philosophy as participants from all sectors engaged in thoughtful discussion, identifying freshwater challenges as well as innovative solutions with the cumulative potential to set the nation on a new trajectory toward sustainable and resilient freshwater resources. It has been said there are two ways to achieve change – through crisis or through leadership. Freshwater is too important to our economic vitality, ecosystems, communities and national security to wait for a crisis, so The Johnson Foundation at Wingspread and our many partners and advisors have opted for leadership. Together we aim to harness the ingenuity and collective spirit that define the United States and direct it toward vigorously addressing the nation's freshwater challenges.

As the convenor of *The Freshwater Forum* and *The Freshwater Summit*, The Johnson Foundation is honored to present this *Call to Action to Address U.S. Freshwater Challenges*. The vision, principles and recommendations developed by the parties to this *Call to Action* were designed to bring overdue attention to our nation's freshwater challenges and catalyze action to address them. The *Call to Action* will also serve as a roadmap for the ongoing work of The Johnson Foundation, which is committed to using our time-honored convening expertise and facilities to support the work that lies ahead. The Foundation looks forward to continuing to support collaboration among the network of people that has coalesced around this process, and to helping forge new relationships in pursuit of sustainable and resilient U.S. freshwater resources.



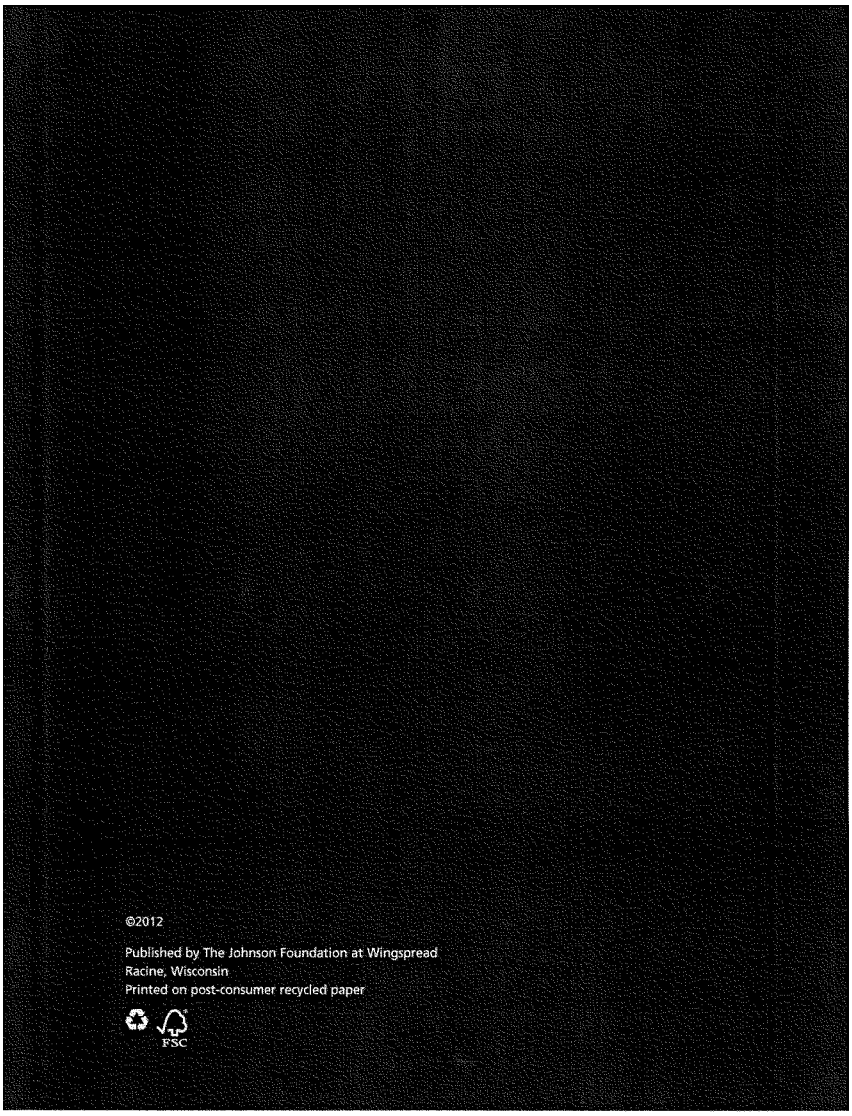
Charting New Waters

Convening Report

Financing Sustainable Water Infrastructure

January 2012

The Johnson Foundation
AT WINGSPREAD
Conferences that Inspire Solutions



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Charting New Waters

Convening Report

Financing Sustainable Water Infrastructure

Meeting Convened by

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American Rivers
Rivers Connect Us

Ceres

The Johnson Foundation
AT WINGSPREAD

Conferences that Inspire Solutions

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Executive Summary

Our nation's freshwater infrastructure faces a critical juncture. Largely built on systems developed during the 19th and early 20th centuries, our water infrastructure is aging, our technology outdated and our governance systems ill equipped to handle rising demand and environmental challenges. Additional strain is being placed on these systems from a variety of sources, including pressures from urbanization and changing climate conditions, such as increases in both droughts and extreme one-day precipitation events.

While these challenges are significant, they are not insurmountable. In fact, they can be viewed as drivers of much-needed change in how we finance and develop our water systems to meet future demands. New financing models and pricing flexibility, which are necessary to pay for new infrastructure and to support legacy systems, provide enormous opportunity for positive transformation necessary to keep pace with the rapid changes being experienced by counties, municipalities and investor owned utilities.

This report seeks to tackle these issues and deliver some recommendations on how to understand and confront the pressing need for more sustainable and integrated water infrastructure financing models. This report is the product of a meeting convened by The Johnson Foundation at Wingspread, in collaboration with American Rivers and Ceres, which brought together a group of experts to discuss ways to drive funding toward the infrastructure we need for the 21st century. Specifically, this group focused on the following questions:

- What new financing techniques can communities use to pay for integrated and sustainable infrastructure approaches?
- How can we direct private capital toward more sustainable water management projects?

The report finds that while options for more cost-effective, resilient and environmentally sustainable systems are available, they are not the norm. In fact, investment in inflexible and expensive "siloed" water systems is still pervasive, despite the fact that money available for financing water infrastructure is increasingly scarce.

Of equal concern is the inefficiency of the existing systems, which lose some 6 billion gallons of expensive, treated water each day due to leaky and aging pipes–some 14 percent of the nation's daily water use. This point is underscored by the fact that the American Society of Civil Engineers gives the nation's water systems a D-, the lowest grade of any infrastructure including roads and bridges.

The report also details the various financing mechanisms available to different water systems. While municipal bonds are the debt instrument of choice for utilities large enough to be able to attract capital from markets, the vast majority of water systems must rely on cash, state revolving loan funds, or other low-interest loan programs at the state and federal level. In fact, only about 1,500-2,000 of the roughly 52,000 water systems in the United States are large enough to issue their own bonds. Given these constraints, some systems are turning to private equity as a financing source.

There are, of course, numerous obstacles and challenges that stand in the way of transforming our water systems to ones that are more sustainable, resilient and cost-effective. One of the main impediments to change is the very nature of the systems themselves, where potable water, wastewater, stormwater, greywater and rainwater are not treated as part of an interconnected system, but rather as distinct, separately financed and regulated units.

In addition, the rate-paying public and locally elected officials must come to grips with the temporary nature of federal subsidies for infrastructure. Once these subsidies expire, ratepayers are left holding the bag for funding further maintenance, inspection and upkeep, which can be politically unpopular. Therefore, many jurisdictions are not able to fully recapture all relevant costs, leading to long-term financial shortfalls and suboptimal maintenance and upkeep of systems.

While these challenges and obstacles are formidable, the report makes clear that they are not insurmountable. Progress towards more sustainable, resilient and cost-effective systems is attainable, particularly if a long-term view is taken. While there is no silver bullet, the report outlines pathways that will improve chances of success. These include:

- **Recognize that local pressures will drive local solutions.** Our water systems are as diverse as the drivers of change that impact them. But solutions are emerging at the local level, including green infrastructure, closed loop systems and recycling. Financing models need to be developed that can support this type of local activity, which can then be scaled up.

- **Consumers should be given choices and options.** Today's water systems typically provide one product at a single price–focusing on potable water. While that has served us well, it is also true that potable water is the most expensive kind of water and is widely used for non-drinking purposes such as watering lawns, flushing toilettes and showering. Consumers should be given options that include differentiated rates for drinking water versus other types. Additionally, water systems should explore how to move beyond "minimum cost rates" in order to meet customer demands.

- **The financial health of our water systems is directly linked to their long-term sustainability.** Our nation's water systems need to embrace various financing changes in order to ensure long-term sustainability. These include full-cost accounting of water services; incorporating value-added services into the revenue picture to better align customers' perceived value with products delivered; improving the capture and dissemination of performance data to drive efficiency; and considering consolidation of certain systems to enhance efficiency.

- **Innovative financing models should be pursued to increase efficiency, add value to customers, and lower costs for providers.** These models should include: mechanisms to expand the pool of water service funding to non-traditional partners; increasing incentives and markets for distributed water services that include "low impact development," such as on-site treated wastewater for buildings; and other green infrastructure initiatives.

- **Alternative market-based solutions should be explored and evaluated for scalability.** These solutions could include: properly valuing and pricing ecosystems services, which provide enormous value yet are largely unaccounted for in the present system; developing securities to aggregate customer-financed projects such as greater "where it falls" water management; and creating private investment opportunities for efficiency gains from such things as retrofitting and closed-looped water systems in order to reduce system impacts and improve efficiency at both the building and neighborhood levels.

This summary provides an overview of the main sections and themes contained in the report, but is not a substitute for the full breadth of depth offered in the following pages.

Ms. BROADDUS. Thank you for your attention to these issues, and I would be very happy to take any questions.

Mr. GIBBS. Thank you.

Mr. Abelson, welcome. The floor is yours.

Mr. ABELSON. Thank you, Chairman Gibbs, Ranking Member Bishop, and members of the subcommittee. My name is Richard Abelson. I am the Executive Director of the American Federation of State, County and Municipal Employees, AFSCME, District Council 48 in Wisconsin.

It is an honor to be here today to share with you AFSCME's experience with the privatization of water and wastewater systems, particularly in Milwaukee, Wisconsin.

AFSCME's 1.6 million members are primarily public employees who work in areas such as health care, education, social services, transportation, law enforcement, and of course, water and wastewater treatment across the country.

We have a broad range of experience and knowledge of the impact that privatization of public services had on communities and the public at large.

Faced with rising financial challenges, the controller for the city of Milwaukee in 2008 proposed the long-term lease of the city's water works.

The Controller proposed a lease of 75 to 99 years, something that was unheard of in a city the size of Milwaukee. This proposal initiated a period of intense debate that lasted for about a year.

A major coalition of community groups and individual citizens came together to examine the impact this proposal would have on the city of Milwaukee.

We found several negative consequences for the residents of other Wisconsin cities that we desperately wanted to avoid.

We discovered that customers of privatized water systems in Wisconsin pay 59 percent more for service than those who receive water from a publicly run system.

We also discovered the customers in Wisconsin whose drinking water systems are privatized encounter more water quality issues and poor service problems.

In the end, the plan to turn over the city's water drinking system to a private company in return for an upfront payment was abandoned.

I would like to submit for the record an extensive report that was done by Food & Water Watch entitled "Mortgaging Milwaukee's Future: Why Leasing the Water System is a Bad Deal for Consumers."

[Please see page 151 for "Mortgaging Milwaukee's Future: Why Leasing the Water System is a Bad Deal for Consumers," which Mr. Abelson attached to the end of his written statement.]

In this extensive report, Food & Water Watch took a close look at the Milwaukee water utility's financial statements and proved how a long-term lease would actually cost the city millions of dollars a year, and customers would see a huge jump in their bills, suggesting that a lease of the water utility was not in the best economic interest of the city or its residents.

The report concluded that the city would undoubtedly experience higher rates and poor service, leaving citizens with little recourse.

The report is attached to my written statement.

Unfortunately, unlike our water works, our wastewater system has been privatized, and it has been a less than successful effort, to say the least.

Our environmental concerns have in fact become a reality.

We believe that the private sector does have a role to play in the provision of certain public services, but it is not in operating or managing public drinking and wastewater facilities. That should be the responsibility of local governments.

The private sector can use its vast resources to find innovative solutions to the water crisis and create innovative technologies for more efficient treatment plants.

We have to ask ourselves, is water a basic public resource or a product that is sold for profit.

What we found in Milwaukee is not unique. Private investors or public-private partnerships, whether in water and wastewater, highways or other capital assets, typically demand a high rate of return, and such provisions as lengthy contract terms, anti-compete clauses, or guaranteed payments, which are not in the public interest.

We believe that infrastructure is more appropriately financed through vehicles with fixed income instruments than to private equity with long-term stable returns.

Given that interest rates are at historic lows and many public entities have latitude to issue debt, bond financing is the best way to achieve this goal.

Renewal of the Build America Bonds Program could save the Federal Government money, help put Americans back to work, and revitalize the infrastructure that is critical to the United States' economic competitiveness.

By providing access to tax exempt investors, such as pension funds, solvent wealth funds, and life insurance companies, Build America Bonds bring new sources of capital to State and local governments.

We should work together beyond considering these options. AFSCME and other labor unions are collaborating to explore financing structures in which a public pension fund or group of public pension funds hold majority control in an infrastructure asset providing stable returns to the retirement system, as well as providing an influx of badly needed investment in public infrastructure.

I appreciate the opportunity to appear before the Subcommittee today, and I would be pleased to answer any questions which you may have.

Mr. GIBBS. Thank you. Before we move on to questions, I have a draft report from Richard Little dealing with the Food & Water Watch analysis of the Milwaukee situation.

I would ask for unanimous consent it be added to the record. So ordered.

[The information follows:]

"Mortgaging Milwaukee's Future: Why Leasing the Water System is a Bad Deal for Consumers"[1]

A Critical Review

Richard G. Little, AICP, NAC[2]

Background

In 2008, the City of Milwaukee proposed granting a long term operating concession for the City's water department to a private entity. The stated purpose of the proposal was to secure an advance lump-sum payment that could serve as an endowment to generate annual payments to the City's general fund. The proposal did not advance beyond the conceptual stage primarily due to political pressure from several stakeholder groups and a lack of consensus on the City Council. During discussions of the proposal, the organization Food & Water Watch prepared an "analysis" of the concession concept and judged a water utility lease "not in the economic interest of the Milwaukee community." The purpose of this review is to comment on the tone and structure of the Food & Water Watch report and examine the assumptions that were used in drawing its conclusions.

The Issues

Like many U.S. cities, Milwaukee is dealing with the consequences of a dwindling economic base coupled with the recent recession and financial crisis. Loss of tax revenue coupled with on-going public service commitments have resulted in large projected budget deficits. The water utility concession was proposed by the City Comptroller as a way to increase revenues without increasing taxes.

This review takes no position on the concession proposal. What amounts to shifting the burden of balancing the general budget to the customers of the water utility is a policy question best addressed by elected officials in concert with their constituents and other stakeholders. To some extent, however, the efficacy of the policy discussion will be influenced by the projected financial performance of an actual concession and a decision of such import should be informed by the maximum amount of information possible. Absent a firm proposal from a bona fide offeror, public agencies typically make use of a "value for money"[3] (vfm) analysis to estimate the expected performance of a lease agreement. A vfm analysis is not the last word, however. Its results must be balanced with social welfare objectives. If

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[1] Food & Water Watch. 2009. On-line at: http://www.foodandwaterwatch.org/water/pubs/reports/mortgaging-milwaukees-future

[2] rglaicp@yahoo.com; (703) 582-0317

[3] 'Value for money' (VFM) is a term used to assess whether or not an organization has obtained the maximum benefit from the goods and services it both acquires and provides, within the resources available to it. Achieving VFM can be described in terms of economy (careful use of resources to save expense, time or effort), efficiency (delivering the same level of service for less cost, time or effort) and effectiveness (delivering a better service or getting a better return for the same amount of expense, time or effort).

cost reductions (and higher VfM scores) are achieved by reducing the benefits paid to workers, eliminating subsidies to low-income customers, or cancelling community outreach, these factors must be taken into account by the officials charged with decision-making.

The Food & Water Watch Report

Food & Water Watch describes itself as a non-profit organization that, among other objectives, advocates "public, rather than private, control of water resources." Although put forward as an objective assessment of the proposed water utility concession, "Mortgaging Milwaukee's Future" is, in fact, an advocacy piece that uses carefully selected and parsed references from a variety of sources to support a set of preordained negative conclusions. The Food & Water Watch report begins with the premise that a private concession to operate a formerly public utility is not in the public interest and then proceeds to develop a case to support that position. Regardless of whether the City should or should not pursue a concession for the operation of the Milwaukee Water Works, the Food & Water Watch report represents advocacy against the proposal, not an objective analysis of its strengths and weaknesses, and should be viewed as such. Given the stated mission of the organization, this is not surprising.

Two stratagems underpin the Food & Water Watch report. First, the private management of water utilities, the proposed Milwaukee concession, and the assumed financial performance of that concession under a hypothetical set of assumptions are all conflated together so that a negative assertion attributed to any of the three applies to them all. Second, the report builds an extensive list of negative conditionals and assumes that everything that "could" or "may" go wrong, will, and that the default decisions of the City's elected officials would always be counter to the public interest and that they would move forward on a concession regardless. The report treats its own assertions as facts and then goes on to draw firm conclusions from them. The report then uses these "conclusions" to construct a circular argument that can best be summarized as, "the proposal for private management of the Milwaukee water utility must be a bad idea because the private management of water is always a bad idea."

Some representative examples include: on page 1, the statement that a private entity *could* only be profitable "by cutting services or raising water rates." Although these are two ways to reduce cost, no mention is made of possible improved operating efficiencies. On page 6, "During contract negotiations, the city *may* agree to continue this practice [seizing the property of delinquent customers to sell for payment] for the private operator." There is no mention of whether this practice is actually carried out at present or why the city would permit a private operator to engage in such an unpopular practice. On page 7, "Without strong public oversight, a private operator *could* cut corners and sacrifice service quality to increase its profits. Such neglect *could* result in low pressure or discolored water." However, nowhere in the report, despite its penchant for the conditional, does it offer the possibility of an inverse argument on the order of, "private management *could* result in equal or improved operational efficiency at the same or lesser cost."

The Financial "Analysis"

The conclusions and tone of "Mortgaging Milwaukee's Future" are generally consistent with other Food & Water Watch reports that comment negatively on the topic of private involvement in water service provision. However, much of the justification cited in this report is based on what is described as a financial analysis of the proposed concession. Although not billed as such, the Food & Water Watch report would probably claim to be a vfm analysis but it is not. Such reports are prepared by skilled professionals who are (or should be) agnostic regarding the outcome. This is not the case with Food & Water Watch. The report analyzes its own negative assertions and assumptions and uses the results of this exercise to conclude negatively on a concession. This section will review and comment on each element of this analysis.

The Concession Fee

The City Comptroller assumed that a concession fee on the order of $600 million could be obtained from a private sector entity for the rights to operate the water system for a period of 100 years. The report assumed that amount as a "best case" scenario and $300 million (an amount approximating the rate base) as a "worst case" assumption. These amounts are treated in the report as a purchase price despite the fact that no sale (such as would occur in an outright privatization) was anticipated. The concession fee is paid for the right to operate the system and collect revenue for a specified time period, not for the transfer of title. As a result, the fee is based on what the offeror views as the value of the operation, which is only partially determined by the value of the physical plant. In the absence of an actual proposal from a bona fide offeror or a complete and competent vfm analysis, any concession amount is hypothetical.

Debt Defeasance

The report assumes that existing debt of the water works would be retired or defeased[4] upon execution of a concession agreement and there is no question that the existing debt of the Milwaukee Water Works will need to be serviced in some fashion. If the debt is retired immediately, the debt service payments no longer made ($2.8 million) should be counted as income. Likewise if a portfolio of Treasury bonds and other high grade securities were used to defease the debt, this amount would return to the endowment when all existing debt was retired. Regarding future borrowing, this section of the report also raises the issue of a private operator typically not having access to tax-exempt debt and counters that private activity bonds[5] could be available. There is considerable discussion currently on-going at the federal level regarding the role of private activity bonds in providing

[4] A defeasance is a financing tool by which outstanding bonds may be retired without a bond redemption or implementing an open market buy-back. Cash is used to purchase government securities. The principal of and interest earned on the securities are sufficient to meet all payments of principal and interest on the outstanding bonds as they become due.

[5] A private activity bond (PAB) is issued by or on behalf of local or state government for the purpose of financing the project of a private user deemed to have some public benefit. The interest earned on PABs is exempt from federal and state income taxes.

financing to public-private partnerships for infrastructure, which would allow broader access to the tax exempt market.

Transaction Costs

The report notes correctly that transaction costs can be significant in negotiations of this size and scale and uses a range of 2% to 10 % of project costs to bound them. This is a crude calculation at best and contrary to one of the report's own references which states, "Transaction costs are related not to project size but to the familiarity and stability of the policy environment. As governments gain experience and clarify policy, these cost will inevitably decrease."[6] It might reasonably be expected that Milwaukee would be better positioned to lower its transaction costs given that the Milwaukee Metropolitan Sewerage District executed what represents the largest service contract ever to be concluded in the wastewater sector within the United States in December 2007. The report also appears to have transposed it own assumptions of best and worst case scenarios. If the "best" case would be the lower transaction costs, then 2% of $300 million or $6 million would be the best and the "worst" would be 10% of $600 million or $60 million, not the $12 million and $30 million asserted in the report.

Endowment Return

Endowment returns from 2008 to 2009 were generally the worst in at least 40 years, which prompted the report's authors to use a 5% "best" case and 3% "worst" case to bound potential annual returns. Such an approach to long-term wealth management is simplistic at best and misleading at worst. Over the 100-year term of the concession, an endowment manager would strive to deliver returns that mirrored a mix of high quality debt and equity investments. There is no way to predict what returns will be over that long a period and a better way to approach this would be to set a target level of annual income desired ($15 million, $30 million, or $60 million, for example) and determine what rate of return will be necessary to achieve it and assess the probability of achieving it over the long term. In the case above, these would be nominal rates of 2.5%, 5%, and 10%. The report also assumes that all existing debt would be accounted for in a lump sum payment subtracted from the concession fee. As discussed earlier under Debt Defeasance, there will either be additional annual income from avoided debt service or a block of securities that will return to the endowment when the debt is retired.

Tax Revenue

The report assumes that there will be no net difference in tax revenues to the City. According to the report, the water works is exempt from property taxes and makes payments in lieu of taxes to the City. It is not clear what the situation would be under a concession agreement as this is subject to contract negotiations that never occurred.

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[6] Seppälä, O.T., J.J. Hukka, and T.S. Katko. 2001. "Public-Private Partnerships in Water and Sewerage Services: Privatization for Profit or Improvement of Service and Performance?" *Public Works Management & Policy*, 6(1):42-58.

Cost of Capital

The report makes a number of assumptions regarding interest rates, capital structure, and returns on equity that may or may not reflect the actual parameters in a bid. One of the attractive features of public private partnerships is that they permit a private party to seek out sources of private equity and commercial debt not generally available to the public sector. Since the onset of the 2008-2009 financial crisis both equity and debt markets have been in turmoil and until the markets stabilize, long-term assumptions regarding project finance are speculative at best.

Depreciation and Taxes

During the discussion of taxes, the report makes no mention of a significant factor in determining the value of a concession, namely, the ability of a concessionaire with a long-term lease to depreciate the value of the fixed assets for tax purposes. In fact, one of the reasons for employing a very long term on the concession is to trigger asset depreciation. In the case of a physical plant worth hundreds of millions of dollars, the annual value of depreciation is significant and would likely offset many of the added costs attributed to the concession in the Food & Water Watch report.

Efficiency Gains

Although there is mixed evidence in the academic and professional literature of efficiency gains (or losses) when management of a water utility transfers from public to private ownership (or vice versa), the report offers the following assertion as fact (p. 14): "Since Milwaukee Water Works is already a well run utility, it seems unlikely that a private operator could cut costs to offset a substantial amount of its greater cost of capital without impairing the quality of service." In essence, the report is claiming that the current operations of the Milwaukee Water Works have achieved a level of organizational, administrative, and operational performance that is beyond further improvement. From this assertion, the report goes further and states (p. 14), "It would be improper to compare operational costs when service quality differs, as it would not be an apples-to-apples comparison. *Therefore, this analysis assumes that privatization would not reduce operational costs.*" (emphasis added). A major reason that governments are looking to the private sector for utility management and operations is a desire to reduce line item costs while maintaining acceptable service levels. For example, in 2008, more than 46% ($21.4 million) of the total expenses for maintenance and operations ($46.1 million) at the Milwaukee Water Works were related to direct payroll and pension costs.[7] In the absence of any analysis, to draw the conclusion that there is no opportunity to reduce operational costs is unwarranted and illogical.

Conclusions

The City of Milwaukee was presented with a bold proposal to address existing and projected budget shortfalls hy applying the equity locked in the Milwaukee Water Works to its general fund. The course of action Milwaukee should pursue is a policy

[7] Public Service Commission of Wisconsin. 2009. Annual Report of Milwaukee Water Works for the Year Ended December 31, 2008. On-line at: http://psc.wi.gov/pdffiles/annlrpts/wegs/WEGS_2008_3720.PDF.

decision best made by elected officials and their constituents and based on financial performance, social welfare, and other objectives. There is no "correct" answer in the abstract (i.e., private operation is always either good or bad). A decision of this import must be informed by a clear set of policy objectives and the best technical information available. The report prepared by Food & Water Watch, "Mortgaging Milwaukee's Future: Why Leasing the Water System is a Bad Deal for Consumers" is an attempt to block further discussion of the concession proposal, not evaluate it to see if it makes sense for the City.

The financial analysis is based on a series of interlocking, hypothetical assumptions under which no proposal could succeed. It is selective and incomplete at best and biased at worst and begins from the premise that a private concession should not be undertaken. References are carefully selected and parsed to support this position and no potentially positive attributes are mentioned, let alone discussed. The financial conditions and parameters are chosen to illustrate that a concession would have negative consequences for the citizens of Milwaukee. These assumptions have little or no grounding in how a value for money analysis would be structured or what would be contained in a proposal from a bona fide offeror. Regardless of whether the City should or should not pursue a concession for the operation of the Milwaukee Water Works, the Food & Water Watch report represents advocacy against the proposal, not an objective analysis of its strengths and weaknesses, and should be viewed as such. Given the stated mission of the organization, this is not surprising.

About the Author

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Mr. GIBBS. I want to go back to this end of the panel to start. This is a large panel. A lot of information was covered here. I think we will have some good discussion here.

Ms. Massey, you raised some concerns, I think, about funding of SRFs and WIFIA. We heard from other panelists that—in my opinion, we want to make sure that we do fund the SRF programs, and it is a complementary program and not compete with it.

You did talk a little bit about some things in the SRF that may need to be fixed or adjusted. I do not know if you want to expound a little bit, maybe something we should try to address in the legislation to actually strengthen the SRF program, and hopefully with a WIFIA type and other financing mechanisms, so they all interact together and accomplish what we need to get done.

Ms. MASSEY. I think the base where the Council of Infrastructure Financing Authorities will come down, it does come down to flexibility.

Just a few things. I will give you a couple of examples. As I give you these examples, I do not want to lead you to believe that the States are opposed to the base concept on some of these because we are not.

Let's talk about green infrastructure. That is one that comes to mind.

States are supportive of green infrastructure. There is no question about that. What we do have an issue with is having a dedicated set percentage of funds or projects that have to be green infrastructure projects.

What we are finding is that not all States can meet the percentages that are being set. Sometimes they just simply do not get the projects in to meet the percentage.

Other times, what they are finding is the projects they are getting in do not touch water quality to any significant degree, so they are having to give up the higher water quality benefit projects. That does become a problem.

I think it is when we lose flexibility by having—"arbitrary" might be the right word—arbitrary percentages of certain types of things we have to do, then that becomes a problem.

The same thing, I discussed additional subsidization. That is a great tool, having the ability to either provide zero interest or negative interest loans to disadvantaged communities. That is a wonderful tool to have on behalf of the States.

Requiring a certain percentage again does become problematic, when your applications that come through the process simply do not get you to that percentage level. It does become a problem.

Those would be two off the top of my head.

Mr. GIBBS. OK. Thank you. To the whole panel, is there anything that we should be looking at, impediments, either at the Federal, State or local levels, to successfully implement a different array of financing?

Does anybody have an opinion on things that are out there that really need to be addressed to make WIFIA work or get the cap off the volume? Is there something at any level of Government that is an impediment that you can envision that maybe we should try to address?

Anyone want to respond?

Mr. DORNBIRER. Mr. Chairman, your memorandum actually did a good job, I think, listing out some of the impediments to considering other alternatives.

I think the largest thing, given that we have tens of thousands of public utilities in the country, it is just a painstaking process to educate each group of civil leaders that there are alternatives.

I do not know how you would tie that in to a program other than some sort of mandatory education process, that when you are considering a loan, you are considering SRF funding or something under WIFIA, that you are educated on all your alternatives in case you do not qualify for one of those programs.

Mr. GIBBS. OK. Yes, Ms. Broaddus?

Ms. BROADDUS. I do not know that this is something that would necessarily be addressed within WIFIA, but one of the issues that was identified in our gathering and in our report are GASB rules. The Government Accountability Standards Board does not allow for accounting of natural assets or natural capital. A lot of utilities around the country are using watersheds to filter their water and protect their water supply, but the accounting rules do not allow them to include that in their assets.

I presume that would in some ways enter into some of the bond activities and that sort of thing, and maybe something to address outside of WIFIA.

Mr. GIBBS. Would that also include other programs like some new programs that have taken off that I have been involved in, the nutrient trading programs?

Ms. BROADDUS. Most probably so; yes.

Mr. GIBBS. OK. Back to Mr. Weihrauch. Can you talk a little bit as to WIFIA and the SRF, expound a little bit about how you think it complements it and not conflict, and how you see it playing out?

Mr. WEIHRAUCH. The strength of WIFIA is it revolves around the largest of projects. Projects that may be multistate.

For example, in Ohio, the Greater Cincinnati Water Works serves the Cincinnati area, many counties, and portions of Northern Kentucky.

Because of a posture, well thought out, of regionalization and efficiencies inherent with regionalization, this practice is going to tend to continue to grow.

To find synergy between the State of Kentucky's SRF program and the State of Ohio's for funding improvements to those water systems would tend to be quite difficult.

[Insert for the record from witness David Weihrauch follows:]

> The realities in both Kentucky and Ohio make it extremely unlikely that either State would fund a project in the other State, even if that project would benefit its own citizens. For example, it is extremely unlikely that Kentucky would fund upgrades to the treatment plant in Ohio, even if Cincinnati Water Works' customers in Kentucky would directly benefit. And it is extremely unlikely that Ohio would fund infrastructure replacement in Kentucky even if that was improtant to the overall integrity of the regional system, including the customers in Ohio.

> I want to be clear that I'm not picking on Ohio and Kentucky. The same conditions hold true in most States if not all of them. And many if not most States have political issues surrounding "upstate vs. downstate" or "big systems vs. small systems" that act to deny SRF funding to their largest cities and to projects that are truly regional or national in scope. WIFIA is designed to address those compelling needs, to ultimately benefit the customers served by large projects.
>
> That's why the American Water Works Association strongly supports running WIFIA through EPA and not through the States.

On the other hand, Section 105, subsection 8 of the proposed WIFIA bill, allows SRF managers to bundle projects, come into WIFIA, pick them up, and as long as the interest climate is good, there is some real potential there.

For example, in the latest round of SRF projects in the State of Ohio, among the 258 which were not funded, 49 were scored at standard long-term interest rates. They are not going to receive a great benefit in their interest or principal forgiveness.

Those types of projects could be bundled, and all 49 of them could be taken care of, and the net interest rate to the project would be about the same as it would be through the typical SRF structure, and the OEPA and the Ohio Water Development Authority would each get their fees on top of that, and still maintain a reasonable interest rate structure at today's terms.

These are benefits, and part of the innovation of WIFIA.

Mr. GIBBS. Thank you. We are going to move on to Ranking Member Bishop. Go ahead.

Mr. BISHOP. Thank you very much, Mr. Chairman. I want to stay on this issue of the two approaches, funding through the SRF versus having the EPA make the decisions and sort of bypass the SRF.

In the conversations that I and others have had about this bill, it appears as if the clean water people want to continue the process of working through the SRF, and the drinking water people want to work around the SRF, as I say, at the risk of over generalizing.

Let me frame the issue for you in this way. Mr. Weihrauch, I think you said it best. You said it is up to us as to whether or not this process might possibly undermine the SRF.

Here is my concern. My background is higher education. I was a college administrator for 29 years before I came here.

In the late 1950s, in the wake of the Sputnik, the Federal Government created something called the "National Defense Student Loan." Some of you may have borrowed a National Defense Student Loan or something called the "National Direct Student Loan."

It was a revolving loan fund where the Federal Government provided money to participating colleges. Colleges loaned that money. Students paid the money back to the colleges. The colleges would re-loan the money. In other words, the higher education version of the SRF.

It has not received a Federal capital contribution now since 2000 or 2001, I think, and under current law, it is now called the "Perkins Loan Program," it is the same program, and will go away.

In 2014, current law requires whatever balances exist in the loan fund to be returned to the Federal Government and the loan program will go away.

That is my concern. My concern is if we have a work around, in a climate in which appropriators are going to have to make really, really tough choices, and I think it is reasonable to assume that climate is going to continue for a while, this is an easy one.

Hey, we got this WIFIA. Let's do WIFIA. We do not have to fund the SRF any more.

That is my concern about a structure that would create what appears to be a complement but could result in a conflict.

Mr. Grumbles, first off, welcome back to this committee room where I am sure you have spent more hours than you care to count. It is good to have you back.

I thought you said it very well in your testimony. You said, and I am quoting, "It is critical to ensure that what is intended as a supplemental tool does not become the one and only tool or in some way, undermine the success of the SRFs."

I think you have said it very well. Would you care to comment on the concern that I just raised, and Mr. Schmitt, you have raised similar concerns, if I could hear from each of you, I would appreciate it. Thank you.

Mr. GRUMBLES. In 1986, when there was a massive agreement between the Executive Branch, the President and the Congress to move away from the construction grants' era of the Clean Water Act, which led to enormous success, but based on fiscal and philosophical perspectives, the decision then was to move away clearly to a new model, the SRF model.

It was structured after much, much debate that it would be a phased transition, and that transition has never fully occurred. There are still some specific grants, although far fewer, but the SRF capitalization grants did not end as was envisioned by Congress in 1987 and by the Executive Branch.

Here, I think the situation is different where there seems to be a willingness—the WIFIA legislation that I have read, the draft, it is clearly the intent of the drafters to keep the SRF going.

It is a political and budgetary decision on the implementation of that. I would say as a former State infrastructure finance authority official, it is realistic to see that the big decisions made on Capitol Hill will lead to far less or much earlier total phase out of the State Revolving Fund.

There have to be safeguards built into that. For me, it really does make sense, while some are concerned about the use of the word "flexibility," when Federal dollars are scarcer and scarcer, and when State programs are showing how mature they have developed over the last several decades, both under the Clean Water Act and the drinking water program, it does mean there needs to be greater flexibility given to the State and local fund managers and the officials, who can then do innovative things with integrating source water and clean water.

I think there has to be real clear safeguards and a mechanism to enforce that philosophy that it is not meant to undermine the SRF.

I think your hearings are just going to lead to more and more ideas about how to do that.

Mr. BISHOP. Mr. Chairman, if you would indulge me, if we could let Mr. Schmitt answer as well. Thank you, Mr. Grumbles.

Mr. SCHMITT. NUCA has been a long time supporter of the SRF, not only as a financing mechanism but the fact that the States can utilize their project priority lists and their intended use plans to determine where those funds can best be used.

In our industry, the needs of water and wastewater spending can be pretty specific and pretty critical, and can shift pretty abruptly.

In my home town of Jacksonville, we are doing a project now where we are pulling out the water mains where 8-inch mains have about 2 inches of flow because of excessive tuberculation.

While that is addressed by a priority, there also might be another instance where you have excessive overflows due to high water tables that are in need of some immediate attention.

I know our utility struggles to try to prioritize what projects need to get funded and what projects need to be put in a place at what time.

The State is much closer than the Federal level, with all due respect, on addressing those needs, and putting our industry to work in evaluating and fixing those needs.

Mr. BISHOP. Thank you very much. I yield back, Mr. Chairman.

Mr. GIBBS. Representative Napolitano?

Mrs. NAPOLITANO. Thank you, Mr. Chair. Yes, it is good to see you, Mr. Grumbles. Long time, no see.

Having come from local government and taking a look at how they have to deal with all the emergencies and having sat on a sanitation board for years, I have a little understanding of some of the trials and tribulations.

As I served at the State level, I heard from other cities about their inability to be able to fund innovative and new research and expansion of their wastewater treatment, and how that affects them.

California has such a long shore line that you have releases of wastewater into the beaches that prevents people from getting into the ocean.

There are all kinds of things that have happened. One of the things that you have not touched upon, and I would like to find out from any and all witnesses who can answer this, how and to what extent is green energy technology being incorporated into long-term infrastructure planning, and are you actively pursuing ways to reduce energy usage while planning for future wastewater infrastructure needs?

I tell you that because we are working with IBW and NETECH to green buildings and being able to recycle the methane gas from the landfills, et cetera.

There is a lot of new technology. How is that playing a role in what you are doing or going to be doing? Anybody?

Mr. GRUMBLES. I will just go first very briefly, Congresswoman, to say that you have really touched on one of the key paradigm

shifts that this country, this committee and others must usher in, and that is viewing in particular wastewater treatment facilities not as treat and discharge plants, but as centers of regeneration.

I can tell you just from our organization's perspective the leading green city utilities who are members of Clean Water America Alliance are all integrating more green energy, biogas recovery, methane management issues, to put that to work, recognizing that there is no such thing as wastewater, just wasted water.

There is a tremendous amount of energy from it and money, profit.

The research agenda still needs a lot more investment, but I think the will is growing. Utilities really want to put that to use.

Mrs. NAPOLITANO. Coming from not only the ranking member of the Subcommittee on Water and Power, I am very concerned about recycled water and the stigma attached to wastewater. We need to start calling it something else so that the general public can accept the recycled tertiary treated water that is included in your aquifers, et cetera.

Yes, ma'am?

Ms. BROADDUS. I wanted to also address your question about green energy. Of course, all water is recycled at one level or another. We may have a hard time accepting that.

In terms of green energy and the ability to reduce the energy impacts of water and wastewater treatment and movement, the Water Environment Federation, who I believe was present at the last panel, the February panel, had issued a statement, I think back in the fall, that they believe that all wastewater treatment can become energy neutral if not energy generating.

I think one of the things we want to be sure is incorporated into the legislation, is the recognition that is where we need to go. That is where we can go. The technology is in the works, and in some cases, already there.

So any financing mechanism needs to not only have the flexibility to allow that but also to encourage that.

Mrs. NAPOLITANO. Mr. Howard, do you have a comment on that? How is the business end of it looking?

Mr. HOWARD. I think that is one of the experiences that we have had in the municipal solid waste sector, where we had a fair amount of innovative technology that has been developed in that sector, in partnership with the private sector.

We would expect that same experience would apply in water and wastewater.

Mrs. NAPOLITANO. Are you taking that in consideration as you are looking at the funding mechanisms?

Mr. HOWARD. Yes, definitely. It has to be commercially proven technology, I might add, to be acceptable to the financing markets.

As long as it is commercially proven technology and viable, it is a very active part of our financing programs.

Mrs. NAPOLITANO. Anybody else?

Mr. WEIHRAUCH. Yes. The American Water Works Association is a strong supporter of innovation and forward looking technologies.

I would submit there is no greener action that can be taken than reducing the infiltration problem on our clean water side and re-

solving the water loss statistics for our community water systems, which can be greater than 40 percent for some communities.

These are easily identifiable, and the only thing standing between taking care of them and not taking care of them are adequate and responsible funding sources.

Mrs. NAPOLITANO. Ms. Massey?

Ms. MASSEY. From the States' perspectives, I believe what we are seeing now is energy efficiency has just become part of our standard dialogue.

We, some States, hardly consider that green infrastructure any longer, because now I think everybody pretty much has bought into it. It makes great operational sense, and it really should be included in the designs, which is now giving us the opportunity to look even further out into those new innovative technologies.

Mrs. NAPOLITANO. Thank you, Mr. Chair. I look forward to the second round.

Mr. GIBBS. Thank you. I just want to make a quick comment. I am very supportive of this concept of innovative technologies. I appreciate Mr. Howard's comments and Ms. Broaddus', because for energy generation and nutrient recapture, there has to be a revenue source.

We do have the innovative part in the WIFIA draft. We are very supportive to make that work, and we will try to look at that and maybe make it stronger.

Ms. Johnson?

Ms. JOHNSON. Thank you very much. Let me also welcome Mr. Grumbles back here. He is a staple around here. I should have known you would never give up water as a career.

My question does not have to do so much with the funding right now. I know that will be ongoing for a while.

I had a constituent who approached me on an interstate water redistribution system, which seems almost impossible to think about right now, but the concept being that where there are floods, there could be some type of piping that would shift that water to another area where it is needed. It would be shifted by technology, whether the little flap is open or not.

I would like to hear some of you that are water experts on the idea of something of that sort.

Ms. BROADDUS. Without knowing the specifics of it, I guess I will take a first crack. I think one should approach anything like that with caution.

Based on what we have heard from the people we have met with, one of the sort of long-term goals is not only to look at the long-term impacts and life cycle costs of something like that, including the energy costs associated, but there is a concept of keeping water local and trying to mimic the natural systems as best as possible.

Again, without knowing the specifics of that situation, before looking to that kind of a technological solution, go back and look at the underlying problem with why the flooding is occurring.

It may be there is actually—it is part of a bigger systemic problem, and there may be by restoration of natural ecosystems a way to kind of stem the flooding and restore the hydrological cycle locally.

Ms. JOHNSON. Yes. It came right after we had a great deal of flooding in the east last year or year before. At the other end of the spectrum, there was a lot of drought.

The idea came up as why cannot we not move this water through some system to another area for agriculture or whatever. I just thought that since many of you were water experts, maybe you thought about something like that.

Mr. GRUMBLES. Congresswoman, I know this committee has for decades looked at some of these regional and interstate water quality, water quantity issues.

I think it is complex because of the laws that overlay the management of water, particularly when you have water quantity and water quality issues involved.

I know the goal for our organization is a "one water" management perspective that creates the forums to bring together the flood and stormwater managers with the water quality permitting agencies, and also the water rights, particularly in our western water States, that definitely has an impact.

Many people would say the future may be more interstate compacts, blessed by Congress through the Constitution, but more interstate compact arrangements involving multistates, but as Lynn Broaddus said, when you think beyond local terms and move water across watersheds, it can become complex, even though it may well be the cheapest engineering solution.

It may prove very costly due to the laws and the political debates surrounding it, and the long-term ecosystem damage, if you are moving water, putting it where it would not normally be.

Ms. JOHNSON. Thank you. Thank you very much, Mr. Chairman.

Mr. GIBBS. Ms. Norton?

Ms. NORTON. Thank you, Mr. Chairman. I do want to thank you and commend you and the ranking member for your concentration on these series of hearings on ways to get financing for our water structure through innovations perhaps.

I want only to mention that there are a large group of Members of the House who are very, very concerned, so much so that we are circulating a letter that is addressed both to the leadership of the Senate and the House.

I am in the process of circulating this letter now. It is going to be signed, among others, by Ranking Member Rahall, Ranking Member Bishop, Ms. Johnson, and I am sure many other members of this committee.

We are very concerned, but I have to be candid, that in light of the difficulty we are having in getting a bill through here, which is generally the most popular bill to come through the House because of its visible benefits to every district in the United States, the Service Transportation Bill, it is hard for me to be optimistic about a water infrastructure bill which the public is not nearly as aware of as they need to be, and I think these hearings may help to encourage.

We are really dealing with a structural change here that I am not sure how to grapple.

If we look at only 35 years ago, the Federal Government covered almost 80 percent of water system funding for capital projects.

That should not be surprising. That is about what we cover for transportation projects with some funding, of course, the rest of the funding by States and localities.

Today, the Federal Government has gone from almost 80 percent to 3 percent. That is not just a reduction. That is a change that structurally transfers the capital costs to States and cities in my own jurisdiction.

I represent the District of Columbia. We are in the process of replacing one of the oldest stormwater overflow systems in the country. It was built by the Corps of Engineers before the District of Columbia even had home rule.

We are replacing it not by replacing the system, but by using huge tunnels which will store the water as it overflows, and then send it to be treated.

This is being paid for almost entirely by ratepayers. We do get some funding in the appropriation bill from the Federal Government. I think this year it was $11 million.

The reason we get that is the Federal Government is a ratepayer. The Federal Government built the system. Or else we would get nothing and it would be entirely on the ratepayers.

This is a very aggressive green jurisdiction, so the authorities here in the District of Columbia have written the EPA for permission to do a pilot project to see how much of this could be—recognizing it would not be anywhere near—most of it could be absorbed through green infrastructure because the city itself is a very green city. I think it may be number one in the United States.

We are having to seek permission to do that, and to do a pilot project, of course, I do not think anyone knows through data or through actual experience how much green infrastructure can be done.

One would think we would want to be launching a matter of experiments to find out what that means.

I am sorry I was not here to hear most of your questions. I was in another hearing. I did want to say the Subcommittee is doing exactly the right thing, to keep attention focused on this issue. It is not going to go away. The Federal Government has decided it simply is not in the game any more.

Unless the consciousness is raised of people who drink the water, who increasingly buy the water, and now we see do not buy that water, you do not need to buy that water, you should not buy that water.

In our city, we are trying to say to people do not buy the water. You are only making things worse.

Unless you see raising of consciousness in your own jurisdictions, you are going to see what has been the collapse of Federal participation, just going to zero. That is where it almost is now.

I thank you very much, Mr. Chairman, for all of your hard work and hearings that I think are putting a spotlight on this very important issue.

Mr. GIBBS. Thank you. Mr. Weihrauch, I have a question. We have heard testimony from some of the panelists and I think the ranking member's concern about WIFIA should be ran through the States, administered by the States.

In your testimony, you strongly recommend against that. Can you give us maybe an example of why you think that is not good to run it through the States?

Mr. WEIHRAUCH. The pure and simple answer is that States do not have the authority that the U.S. Treasury has, WIFIA being modeled after TIFIA, would be a direct conduit of funds from the Treasury, and extremely efficient, as it is outlined in the bill.

Everybody that handles funding must cover their overhead, and the temptation, of course, is always there to take a little bit more for a noble program, and there are many good projects underway within environmental management programs throughout the States.

The efficiency is the hallmark of the WIFIA concept.

Mr. GIBBS. Also, to reiterate, the American Water Works Association and the Water Environment Federation, the two primary professional membership organizations of the water and clean water industry, are of one mind on the thought of efficiency through the WIFIA program for these large projects.

Neither organization wants to see additional layers of management built into that funding structure. Of course, that is large projects, but also in our proposed legislation, smaller projects can aggregate, and actually the State would administer that part. Is that correct?

Mr. WEIHRAUCH. That is correct. The draft bill is structured in SRFs can utilize it for bundles, $20 million and up, and there is no ceiling there.

Mr. GIBBS. Thank you. Mr. Howard and Mr. Dornbirer, what advantages would municipalities have by using private activity bonds versus governmental bonds?

Mr. HOWARD. I think the point I made earlier about the partnership with the private sector and the flexibility that would provide under a variety of different contracting structures, ranging from just a design/build approach with public operation with innovative technology, all the way to design/build, operate, finance, and owned by the private sector under some sort of contractual, wholesale contractual arrangement with the public sector.

I think our experience again in the solid waste industry, and to a certain extent in the water industry, but to a much more limited degree, is that what happens is you attract large international private companies domestically based or internationally based that have extensive capability and knowledge around innovative technologies that have been applied elsewhere that can be brought to bear to local jurisdictions.

We are involved in a number of public-private sector arrangements across the country right now, and in a couple of cases, dealing with very small municipalities that are under a tremendous amount of strain budget wise, and just simply do not have the local expertise to manage their systems.

They are reaching out to the private sector to help them. Right now, we have plenty of tax exempt bonds to tap into, but we do not expect that to last very long.

Mr. GIBBS. I think that is a very interesting point. You are saying with that private investment capital coming in, you also are going to get the expertise and the consultants.

Mr. HOWARD. That is the real benefit of the public-private partnership model. What it forces the parties to do is to sit down at the table and plan for a 30- or 40-year contract that shifts a fair amount of risk to the private sector to manage the system efficiently.

It is something that small jurisdictions very much benefits from.

Mr. GIBBS. Thanks. I appreciate that.

Mr. DORNBIRER. I would just like to add that we finance the water recycling plant in Santa Paula, California, along with DZ Bank.

There, the private equity sponsor brought in an engineering design firm and operating firm all in one. They designed the plant and built the plant, knowing they were going to have to operate the plant for the next 30 years. You have a much more holistic approach to incorporating the new technologies.

Like Steve said before, we want commercially proven technologies, but also technologies to actually provide an asset from these plants. The effluent coming out of the plant is now available for irrigating golf courses, and you can directly inject it back into the aquifer because it is cleaned to such a standard.

Mr. GIBBS. I do want to ask the Mayor from Napoleon, Mayor Behm, since you are the only local elected official here, administrator, can you comment on what you see as a medium sized to small municipality, the challenges you have to access capital and what hoops you have to go through, working with the EPA or whoever?

Can you maybe elaborate on what you see some of your challenges are, being a new Mayor?

Mr. BEHM. Sure. The challenges, as I stated earlier, we really have not had a problem necessarily getting funding. Some of the challenges is on the length of the funds, such as our equalization basin, which costs $8.85 million. We were able to receive a low-interest loan through the EPA.

That, however, was only for 20 years, when actually the equalization basin is going to be a lifetime expectancy of 30 to 40 years.

Something in that regard would be much more beneficial for the city to pay over a longer time.

As far as receiving any kind of funds, it has not necessarily been the problem. The problem again is generating the revenue to——

Mr. GIBBS. Another thing this committee has been working on with the EPA, and we are going to ask them to come back later this Spring, because they are working on a pilot program to integrate and prioritize the permitting process to hopefully streamline things, so you can move forward and address immediate needs, which might be different than a need in another municipality, but give the ability through the permitting process of flexibility, and hopefully that is something you can see as a benefit.

Mr. BEHM. That would be definitely beneficial.

Mr. GIBBS. I will yield to the ranking member.

Mr. BISHOP. Thank you very much, Mr. Chairman. I have three things which I will try to move through quickly.

Mr. Howard, Chart 10, I think it is, I just want to revisit that. If I am reading it correctly, in 2010 and 2011, there were some $25

billion worth of taxable Build America Bonds. Am I reading that right?

Mr. HOWARD. That is correct, approximately; yes.

Mr. BISHOP. Approximately. Those were used to construct and/or renovate/rehab water and wastewater systems?

Mr. HOWARD. Yes, but under a traditional governmental purpose bond financing structure. In order to issue taxable Build America Bonds, the project that you finance had to qualify as a governmental purpose——

Mr. BISHOP. My question is a little different. I am assuming these are projects that employed one or two people. Is this correct?

Mr. HOWARD. No. These were projects—all different types of projects.

Mr. BISHOP. My point is these are projects that this is funding that supported construction and/or rehab of water and wastewater projects?

Mr. HOWARD. That is correct.

Mr. BISHOP. Some people actually worked on these projects?

Mr. HOWARD. Yes.

Mr. BISHOP. The Recovery Act did in fact——

Mr. HOWARD. Oh, definitely.

Mr. BISHOP. Put people to work?

Mr. HOWARD. Definitely. Had a huge impact.

Mr. BISHOP. Thank you very much for that, sir. I appreciate that.

On the issue of private activity bonds, let me say that this committee on a bipartisan basis four Congresses ago passed legislation that would lift the cap on private activity bonds.

I think we are in full agreement. We also have another legislative mechanism before us today, the Senate Highway Bill, which passed last week. It is called "MAP–21." It includes a provision that would lift the cap for 5 years on private activity bonds.

I introduced that bill in the House this morning in an effort to jump start a process that seems to have ground to a halt, and I do not want to put words in any of your mouths, but it seems the consensus of the testimony that we have heard thus far is you would encourage us to get that provision passed.

Am I right about that?

Right now, the only legislative mechanism before us to do that is MAP–21, the Senate Highway Bill, which passed by a huge bipartisan majority that I have now introduced in the House, and hopefully, we can generate similar bipartisan support.

Lastly, Ms. Massey, I do not wish to be argumentative, but I just want to make sure we have the same set of facts.

You talked about the green infrastructure requirement, the set aside, as being a bit of an impediment.

It is our understanding that at least as it relates to the clean water SRFs, all the States have reported to us they had more than sufficient number of projects to meet the set aside.

By the way, the green infrastructure set aside was established in the Recovery Act. It has now been carried forward in the last couple of appropriation bills.

The appropriation bills have each included language that eliminated the reserve or the set aside if the State did not have sufficient projects.

My question is given the fact that we have States saying we have no problem, we have plenty of projects that meet, and we also have a provision that says if you do not have projects that meet the requirement, we will waive it, on what basis is it still viewed as an impediment?

Ms. MASSEY. I believe we can certainly live with the current language the way it is. There are sufficient applications.

What we are seeing is there are a dwindling number of applications coming in, so I think we are looking toward the future, and we have that concern, but we absolutely can live with the language the way it currently is.

Mr. BISHOP. If we were to continue to have language that provides an exemption, if there are insufficient projects, that would allow the administrators of the State SRFs to go forward in a fashion that is productive?

Ms. MASSEY. Yes, we can live with that language.

Mr. BISHOP. Thank you very much. I thank you all for your testimony. Thank you, Mr. Chairman.

Mr. GIBBS. Ms. Napolitano?

Mrs. NAPOLITANO. Thank you, Mr. Chair.

I have a little bit of an introduction of a news release for the record, if you would. It has to do with one of my providers in Los Angeles.

It is reflecting an increase of rates of 60 percent associated with the O&M, operations and maintenance. They also include in that this water distribution and treatment, an example of the increases we are seeing nationally.

Costs are shifting from construction of projects to the O&M, to operations and maintenance.

I would like to just quote part of the release. Of course, in 1990, this agency, Metropolitan, went from $30 million in maintenance to currently somewhere in the vicinity of $275 million a year, costs.

How do we then begin to look at cutting the O&M if we do not upgrade the maintenance, if we do not replace, if we do not take care of what ails our aging infrastructure?

Two questions for the panel. At the last hearing, one of the witnesses suggested that private equity firms should have direct access to a new water infrastructure and financing authority to borrow at the same subsidized rates that would be available to municipalities and communities.

The CRS, Congressional Research Service, told us that providing this access to private equity firms could result in a situation where they re-loan this federally subsidized funding to local communities, and arguably, make a profit off acting as a middle man of Federal financing.

Does that make sense, that we should be using federally subsidized firms to increase profit margins of private equity firms, especially if this comes at the expense of local communities' ability to address their local infrastructure needs?

Mr. GRUMBLES. I will just say, Congresswoman, that my firm belief is the era of cheap water is over. As AWWA said, years ago, we were entering the age of replacement, where all the aging infrastructure systems need to be replaced and upgraded.

The most sustainable way to deal with that challenge and to manage your assets is through the local rate making process, which is a difficult one.

I think that is the fundamental first step, making sure the rates reflect the true value of the service of the infrastructure, not just putting it in the ground, but maintaining it and upgrading it over time.

In terms of additional infusions of dollars, whether it is State dollars or Federal dollars, the dollars beyond what is coming from the ratepayers themselves, that is where you need to look for opportunities to further engage the private sector, because there will be efficiencies, and that will help reduce that cost which has to be paid in order for the system to be maintained.

The last point is the fundamental paradigm shift that is occurring in places across the country, re-looking at the systems and centralized water and wastewater treatment, and trying to find ways, deploying the right technologies to treat and reuse closer on-site, so you do not have the long miles of leaking pipes and that type of problem.

I think the more you can structure a financing relationship where the private sector can come in without selling the assets to the private entity, I think that will help reduce the costs on the burdened ratepayers.

Mrs. NAPOLITANO. Anybody else?

Ms. BROADDUS. I would like to address, Congresswoman Napolitano, the first part of your question, and that is yes, we do have a growing burden of the cost of repairing and replacing this infrastructure that we have in place, both on the clean water and the drinking water side.

Rates need to reflect that cost. They can be shaped in a way that still protects those who are least able to pay, but we want to make sure that in total, the full cost is recovered.

There also needs to be the flexibility to examine. There may be times and it would be a case by case scenario, but there may be times where it makes more sense to put in place some kind of new technology.

During our meetings, we definitely heard about times where it makes more sense to go "off grid," if you will, a term that is used more in energy than it is in water, but there are opportunities to do that with water as well.

One needs the flexibility to figure out what makes the most sense for that particular situation.

Mrs. NAPOLITANO. Yes, sir?

Mr. WEIHRAUCH. Yes, ma'am. I would just like to attempt to add some clarity to part of the WIFIA approach and about the P–3s, the partnerships.

The utility is sponsoring the loan, and this limits what happens to that money. It is going to the direct benefit developed within that contract, it is not creating a mechanism where someone could take advantage of the availability of Federal money by virtue of their access.

It would be established prior to the project being underway, and would be limited within a very defined scope and controlled through that mechanism.

Mrs. NAPOLITANO. That could well be. Yes, sir? Go ahead.

Mr. HOWARD. I was just going to comment that one of the many hats I wear in infrastructure is financing transportation projects. We have been involved in several projects that include the TIFIA program.

To your point, the benefit of the TIFIA program and the flexibility and cost of funding for the TIFIA program passes through ultimately to the public ratepayers in the form of a lower cost of financing, and in some cases, whether the project can be financed at all.

A lot of the projects that TIFIA supports in the transportation sector would not get funded were it not for the availability of the program.

Mrs. NAPOLITANO. It also begs the question, and I beg your indulgence, Mr. Chair, the length of the loan also. Will that run with the new maintenance and operation, the age of the loan?

Which one comes first? Then what happens after that? Should we protect aging infrastructure public subsidy with private equity financing firms?

Mr. HOWARD. I would say the contracts that are typically set up, the long-term contracts that are set up for infrastructure projects——

Mrs. NAPOLITANO. How long, normally?

Mr. HOWARD. For new construction projects, typically 30 to 40 years. There is what we call a hand back requirement, where the condition of the infrastructure has to meet certain minimum standards before the asset is transferred back to the public sector at the end of the agreement.

Mrs. NAPOLITANO. Thank you, Mr. Chair.

Mr. GIBBS. I want to thank everybody for coming. I think during this and the last hearing on this issue, it has brought some more insight to some of the things, that we can make some tweaks to the proposed legislation.

Also, I want to mention as you all know, this is really a jobs bill to put people to work on building infrastructure that we have to have.

I just want to comment on the Build America, it is unfortunate that only 5 or 6 percent of the total Recovery Act money went for infrastructure, a very small percentage.

Mrs. NAPOLITANO. Mr. Chair, would you yield for a second?

Mr. GIBBS. Yes, go ahead.

Mrs. NAPOLITANO. You touched on an important point that I did not get to ask, and that is if any of the agencies here have begun to estimate the impact on wastewater infrastructure improvements and projects on local job creation, and I yield back to you.

Mr. GIBBS. OK. Obviously, there is some job creation. This is a jobs bill, as I say. Of course, I am always in favor, that the private sector creates more jobs than the public sector, but these are issues on infrastructure, and I think there is a role in the public sector.

Thank you again for being here. We look forward to working with you as we hopefully move this legislation forward.

That concludes this hearing. Thank you.

[Whereupon, at 12:02 p.m., the Subcommittee was adjourned.]

OPENING STATEMENT OF
THE HONORABLE RUSS CARNAHAN (MO-03)
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
U.S. HOUSE OF REPRESENTATIVES

Hearing on
The Review of Innovative Financing Approaches for Community Water Infrastructure Projects.
Wednesday, March 21, 2012
10:00 am
2167 Rayburn House Office Building

Mr. Chairman, thank you for hosting this hearing to explore the approaches for financing our community's water infrastructure projects around the country.

I share the concerns of many of you here today. Clean drinking water and public waste water services are essential to maintaining public health, the protection of our environment, and supporting our economy. However, the existing water infrastructure is in desperate need of repair and upgrades to continue to provide clean and safe water to our citizens.

Currently, the EPA is mandating a broad reconstruction of water and sewer systems in the St. Louis metropolitan area. While the long-term improvement of water infrastructure is a desirable goal, this mandate threatens to triple the size of water bills for St. Louisans. This dramatic increase in living costs could have serious implications for struggling citizens of St. Louis and of other areas in which similar EPA mandates have been enacted.

In the state of Missouri, nearly 2.4 million people depend on safe, clean sources of water with many more nationwide. Therefore as we move further into the 21st century, it is imperative that our efforts must be focus towards revitalizing our water infrastructure while putting the least amount of financial burden on our constituents. This task requires developing a more complex and detailed understanding of the social, economic, and ecological reasons why communities lack these services, and constructing solutions that are not only acceptable and feasible, but also sustainable. I believe that the questions we address today are vital to optimizing the living conditions of U.S. citizens, and I cannot overstate the value of your input and deliberation.

I want to thank all of the witnesses for being here today and for their important work. I look forward to hearing their testimony.

Statement for the Record of Congressman Dennis J. Kucinich
Hearing of the Transportation and Infrastructure Committee, Water Resources and Environment Subcommittee
"Review of Innovative Financing Approaches for Community Water Infrastructure Project—Part II"
March 21, 2012

According to the Environmental Protection Agency (EPA), the Congressional Budget Office and the Water Infrastructure Network, there are more than $400 billion worth of long-term infrastructure sustainability needs that must be addressed over the next two decades. As a recent report by the Johnson Foundation found, this includes a looming freshwater crisis in the United States. Communities across the nation are struggling to respond to very real changes in precipitation, including drought, that has left local systems overwhelmed.

There is no shortage of ideas for how to address this need. The question is how we will finance this essential infrastructure. The conventional methods of financing enormous capital improvements have historically been reliant on governments either seeking to borrow large sums of money, or (as was the case in an era gone by) financing these improvements with money on hand. For years, addressing these needs has been dependent on a municipality's ability to secure financing.

I propose that the construction of water infrastructure and other critical infrastructure needs of Americans no longer be subject to the whims of capital markets, or of banks that have consistently shown a far greater interest in speculation than in providing low-cost financing for infrastructure improvement. H.R. 2290, the National Emergency Employment Defense (NEED) Act of 2011 would do just that. Under my legislation, banks would not be able to create money for speculation, or for asset price inflation. Instead, the first use of new money goes to creating new wealth: new assets in the form of infrastructure.

The money spent on contractors under the NEED Act would flow through the economy with increased orders to suppliers and increased demand for high-skilled people in well-paying jobs, who in turn increase their orders for a wide range of new goods and services. This will greatly improve the cash flow of the productive sector and make lending to that sector much more attractive. Under the NEED Act, the needs of the people will be paramount, not the interests of speculators. In this way, the NEED Act can shift the focus of bank lending towards productive investments in businesses which supply goods and services and away from asset "flipping" and speculation.

By putting the Federal Reserve into the Department of Treasury as the NEED Act prescribes, we would make our monetary policy truly accountable to Congress and the American people, and in turn, can secure the financing necessary for water infrastructure.

Representatives Tom Petri and Gwen Moore

Statement for the Record

Review of Innovative Financing Approaches for Community Water Resources Projects Part II

Subcommittee on Water Resources and Environment

March 21, 2012

Chairman Gibbs and Ranking Member Bishop, thank you for holding this series of hearings on the need for wastewater and water infrastructure funding to serve and sustain urban and rural communities and improve water quality in America. We both appreciate your holding these hearings to shine a light on the deteriorating condition of our nation's water infrastructure, the threat that poses to our water resources and communities, and the need for all stakeholders, federal and state and others, to work together to find solutions.

Today is the 40th anniversary of the 1972 Federal Water Pollution Control Act (Clean Water Act), which was originally developed by this Committee when Congress recognized the critical need for a federal role in supporting local wastewater facilities and protecting our drinking water. Thanks to this Committee's foresight, federal funding of grants and revolving loan funds, our water quality has improved. But the need for improvement still remains.

Construction needs for wastewater facilities, stormwater best management practices, and drinking water facilities continue to grow. In the last decade, the Water Infrastructure Network estimated construction needs for wastewater at $550 billion and $450 billion for drinking water. Wisconsin's wastewater construction needs alone total $6.4 billion and drinking water needs total $6.2 billion, according to the state's Department of Natural Resources. Because of this, we would appreciate you including the statement of the Milwaukee Metropolitan Sewerage District in the hearing record.

These construction needs include projects to reduce the discharge of phosphorous and nitrogen to provide safe drinking water. Additional needs exist for control of sewer overflows including those caused by infiltration and inflow, where stormwater enters cracked sewer pipes and exceeds the treatment capacity of the treatment plants, and for meeting tighter more stringent treatment requirements to ensure safe drinking water for generations to come.

Another challenge is that America's population continues to grow. This growth will require additional wastewater treatment investments and protection of drinking water. One of the ways to meet this growth in demand is to create a Clean Water Trust Fund supported by dedicated revenue sources which would provide federal investments to supplement state and local investments in water infrastructure. This is a long-used method for advancing public infrastructure in the United States, such as the highway trust fund for our highways or the aviation trust fund which supports our aviation system. Dedicated revenue for this purpose is particularly important for clean and safe water because of federal requirements to protect public health and regional and local water bodies.

Creating a trust fund with dedicated revenues is prudent in this period of fiscal stress in order to protect the current clean water State Revolving Fund (SRF) programs for clean water and drinking water. The SRF programs were established to provide low interest loans through states to local governments and public utilities. Additionally, these programs are authorized to provide guarantees and bond insurance for local government issued bonds. A dedicated clean water fund would work with the SRFs to support projects, research and development, and state water management programs.

The establishment of a national Clean Water Trust Fund (as in H.R. 3145) is an innovative but proven means of advancing clean water investment in America. We look forward to continuing our work with you on this issue.

Thank you, Mr. Chairman.

STATEMENT OF

RONALD A. BEHM

MAYOR, CITY OF NAPOLEON, OHIO

BEFORE THE SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT

OF THE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

UNITED STATES HOUSE OF REPRESENTATIVES

REVIEW OF INNOVATIVE FINANCING APPROACHES FOR COMMUNITY WATER INFRASTRUCTURE PROJECTS

MARCH 21, 2012

Good morning, Chairman Gibbs, Ranking Member Bishop and members of the Subcommittee. My name is Ronald Behm and I am the Mayor of the City of Napoleon, Ohio.

The City of Napoleon is located in Northwest Ohio, in Congressman Latta's District, along the Maumee River and is your typical small town, U.S.A. We are facing challenges, similar to others who live in the Midwest with high unemployment, lower salaries, decreasing property values and rising costs. Based on a comparison of the 2000 and 2010 census numbers, the City of Napoleon has lost nearly 600 residents (9,318/2000 and 8,749/2010) and the median household income in 2010 was $35,762, roughly $2000 *lower* compared to the 2000 average. Based on the median household income for the State of Ohio of $47,318, it is clear to see that ours is not a wealthy community.

Our City is also similar to others in Northwest Ohio in that we are under "Findings and Orders" for our SSO's (Sanitary Sewer Overflows) and CSO's (Combined Sewer Overflows). In 2004, the City came to an agreement with the EPA for a 20 year plan, which requires the City to remove all SSO's from our system and reduce the CSO's to one. Due to our economic situation, we were able to receive a 20 year agreement instead of a typical 10 year plan. The plan was estimated to cost our City $35 million to complete and contained 62 individual projects.

As of 2012, the City of Napoleon is on schedule and we have completed 22 of the 62 projects which have helped us remove 22 of the 29 CSO's from the system. So far, we have spent more than $19.5 million. Our City Engineer estimates that the total cost of all 62 projects for the 20 year period will cost closer to $100 million. In addition to the $100 million, an engineering study shows we will need $15 million to upgrade our water treatment plant to meet current and near future EPA standards. Therefore, we anticipate spending a total of $115 million in the 20 year period and does not include any additional capital improvements that may become necessary over the next 14 years.

The City of Napoleon is paying the debt service for the projects by raising the sewer and water rates. These increases have been added every year, but one, since 2003 and have doubled the water and sewer bill for our residents and businesses. For example, a typical residential water bill in 2003 was $74.31 and in 2012 that number is now $137.31. The higher rates have had a larger affect on our businesses. For example, in 2003 a typical monthly industrial water and sewer bill was $1460.25. In 2012 that number is now $2,942.45.

As I had mentioned previously, the City of Napoleon has spent $19,572,245 to complete one third of the projects and we have had to issue debt for $19,427,845. So, after the City has doubled the water and sewer rates, we are still only able to service the debt and pay for normal water and sewer operations. Please also remember that our resident's median household income over that ten year period has *decreased* by $2000.

Over the next two years, our City Council has authorized two additional rate increases, totaling 20 percent as suggested by an independent consultant. In three years, when it is time to upgrade the water plant, it has been recommended that the City must raise the water rates by an additional 50-60%. Remember that we have only completed one third of the projects and we expect to quadruple our debt by the time all projects are completed. At the same time our residents have also reluctantly voted to

increase our income tax by 0.3% to help offset the operational costs of the City and preserve fire and police services.

The concern with increasing taxes and raising rates is that at some point you reach a breaking point. A point where the residents can't afford to pay the rates, but instead are forced to leave our City. Especially when you take into consideration that 30-40 percent of our residents rent, which makes them fairly portable, as they can pick up and move at any time.

Businesses could also decide that their only option is to move and I don't know of many communities in our region that wouldn't openly welcome a business into their town and offer them nice incentives to entice them to relocate. If the City of Napoleon begins to lose residents and businesses we will find ourselves in deeper trouble, because our rates and the ability to pay off our debt is calculated based on an estimate of usage.

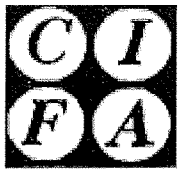
The bottom line is that we simply can't continue to proceed down this road, a road we have chosen to go down rather than pay fines imposed by the EPA. The City of Napoleon has never argued with what the EPA is attempting to achieve; we have, however, argued about how we get there and how it will be paid for.

The Water Infrastructure Finance and Innovation Act (WIFIA), as I understand it, attempts to help communities receive funding. However, the City of Napoleon hasn't had a problem with receiving funds and issuing debt. Our problem is with raising money to pay the debt and the amount of time in which we have to pay. I am familiar with another bill, H.R. 1189, the Clean Water Affordability Act of 2011, sponsored by Congressman Latta, which helps address the problems that the City of Napoleon and so many communities of similar size are facing.

HR 1189 would help assist municipalities in funding projects for wastewater treatment and extend repayment periods to 30 years or the design life of the project. This would have been helpful with our equalization basin, which cost the city $8.85 million to build and has an estimated life of 30-40 years, but we could only receive funding for 20 years. H.R. 1189 also requires states to put aside 15 percent of funds for assistance to municipalities of fewer than 10,000 residents that meet specified affordability criteria. It also requires states to establish affordability criteria to help identify those in greatest need.

The City of Napoleon needs assistance if we are expected to continue to meet the mandates we have been saddled with. This is an issue that is shared by all residents, regardless of their political positions and beliefs. That is why I am hoping that Congress will come to an agreement which will help cities in similar situations to that of the City of Napoleon.

I appreciate the opportunity to provide the subcommittee with a local government perspective on this important issue and thank you for your time today.



Testimony of:

Karen Massey

Director

Missouri Enviromental Improvement & Energy Resources Authority

Jefferson City, Missouri

President

Council of Infrastructure Financing Authorities

316 Pennsylvania Avenue, SE

Suite 404

Washington, DC 20003

Subcommittee on Water Resources and Environment

House Transportation and Infrastructure Committee

U.S. House of Representatives

March 21, 2012

My name is Karen Massey and I am the Director of the Missouri Environmental Improvement and Energy Resources Authority. I am here today in my capacity as President of the Council of Infrastructure Financing Authorities, representing the State programs that manage the State Revolving Funds. We welcome the opportunity to share our views with the Subcommittee on financing community water infrastructure projects.

We believe sustained Federal funding is essential to realizing our nation's water quality goals. States should be in the forefront in pursuing different options and innovations that will make the best possible use of that funding. We recognize that the current level of funding provided through the SRFs, as well as programs within USDA and HUD, will not be sufficient to meet the escalating needs for water infrastructure. Thus, we welcome new approaches and tools that may generate additional resources. However, we are convinced the SRF partnership between the federal and state governments should continue as the primary means for assistance to communities in addressing water quality issues.

In the past two decades, few federally authorized programs have proven as effective in realizing their intended goals as the SRF programs. They have provided a sustainable source of funding to protect and restore our nation's rivers and streams. It is important to note that the assistance made available to communities is significantly greater than the initial federal investment as a result of state match, loan repayments, issuance of bonds and interest earnings. The Clean Water State Revolving Fund has committed over $90 billion to projects for wastewater infrastructure.

States, as the recipients of SRF capitalization grants, recognize that they incur a number of responsibilities. We must manage those funds in a fiscally responsible manner and be accountable. We must give priority in our funding decisions to the water quality benefits that will

result and the urgency of environmental problems needing resolution. We give particular attention to the challenges faced by small, rural and disadvantaged communities. Our goal is to use all the possible tools and strategies to assure needed financing.

As the Subcommittee weighs the future of the SRF program, as well as new initiatives to spur water infrastructure development, we hope you will bear in mind the record of accomplishment by State SRF programs over the past twenty-five years.

From the States perspective we have two primary issues of concern: funding and program flexibility.

The ability of States to meet present and future needs for water infrastructure is predicated on continued funding for the SRF programs at a sufficient level to ensure the full realization of the revolving nature of the funds and the maximum utilization of leveraging by States which have chosen that option. We understand the need for budget restraint but would hope that not too great a share of that restraint is at the expense of the SRF programs.

Our second concern centers on efforts to impose new requirements and obligations that are not at the core of SRF program goals. It is well to remember that it is a loan program not a grant program. If an SRF loan becomes too administratively burdensome and weighed down with too many extraneous requirements, it will cease to be an attractive option for many communities, with the result that clean water goals will suffer. After years of successful program operation we think it is clear the more latitude and operating flexibility the States have, the greater our capacity to accomplish the environmental and financial goals of the program. Certainly States need to be fully accountable for their use of federal dollars but excessive oversight or

administrative control by EPA stifles innovation and the ability of States to best respond to local needs.

A good example of administrative burden recently imposed on the States are the processes and paperwork that have accompanied the application on Davis-Bacon provisions to SRF funded projects, particularly in those States already having a prevailing wage rate in place. It has been a duplicative, time-consuming and unproductive undertaking.

The success of this program derives from the flexibility of the SRF model, allowing each State to decide the best approach to meet its individual water quality needs. Efforts to mandate that a certain percentage of funding be set aside for particular types of projects such as green infrastructure or that require States to dedicate a set percentage for additional subsidization fail to recognize that States are in the best position to decide their priority water quality needs.

With respect to the question of what new tools or innovations may help communities achieve their clean water goals, the issue is how to achieve a significantly increased level of affordable financing for water infrastructure. As the recent ARRA experience illustrates, when communities can access free or very affordable money, water infrastructure gets built. The key factor is the cost of that money. If new approaches, such as the Water Infrastructure Finance and Innovation Act (WIFIA), can provide additional funding at attractive rates this will be a plus, particularly in terms of financing projects that might not be built in the immediate future due to funding constraints.

Currently, State SRF programs are able to provide communities with a loan at an interest rate significantly below prevailing municipal market rates. In addition, a number of States offer interest free loans to economically disadvantaged communities. Beyond loans there are a variety

of other assistance options available including purchasing or refinancing local debt and providing guarantees or purchasing insurance for local debt.

Can WIFIA offer comparable benefits to communities?

WIFIA seeks to facilitate Federal credit assistance in the form of direct loans and loan guarantees for larger scale water and wastewater projects in order to generate additional sources of capital. Our sense is that its impacts are likely to be relatively modest. The assistance made available through WIFIA would not approach the very low interest rate offered through a subsidized SRF loan. In many instances, borrowing at a Treasury rate – the key benefit of WFIA – will not provide any advantage over borrowing in the municipal market. A SRF loan is going to be a better deal from an interest rate standpoint. And tax exempt financing will remain attractive both from the standpoint of competitive rates and the likelihood that a Federal loan guarantee will include Federal requirements and conditions; this would not be the case with a municipal bond issue.

This by no means suggests there are not circumstances in which the WIFIA approach would be useful. It offers an alternative for projects that are beyond the scope of available SRF funding and for which the Federal guarantee represents the optimal credit option. Viewed as a supplementary program, to address specific situations and the unique funding challenges of large scale projects, WIFIA should prove a valuable addition to the financing tool box. The needs of most communities, however, will continue to be best met by the State Revolving Fund programs.

It is our hope that as the Subcommittee explores various legislative options to increase sources of financing for community water infrastructure, there will be a focus on several issues of significance to the future strength and development of the SRF programs.

There a number of important administrative and operational issues for the Clean Water State Revolving Fund program that require a legislative fix. These include expanding eligibilities, allowing additional subsidization to disadvantaged communities, fund transferability and clarifying States' use of bonds to meet match requirements. It would be very helpful to get these noncontroversial items resolved in the near future and not subject to the uncertain prospects for a multi-year SRF reauthorization bill.

We encourage the Subcommittee to carefully weigh the potential that proposals seeking to incorporate new goals within the SRF programs may undermine the core mission of maximizing sustainable financial assistance to communities to develop water infrastructure. SRFs are being targeted to advance policy goals ranging from green infrastructure and smart growth, to better asset management, full-cost pricing and Buy American requirements. States are beginning to experience resistance from municipalities, particularly smaller communities, which now view a SRF loan as too complex and burdensome. A host of new requirements, however well-intentioned, will impede the effort to get the communities with the most significant water quality issues moving forward to address those challenges.

The proposals attaching new conditions to SRF assistance appear to reflect a policy shift toward imposing federal requirements governing all future assistance provided by the 51 CWSRF programs. This is a dramatic departure from the last 25 years of operation and signals a "federalization" of the program.

Since their beginning, the State CWSRF programs have managed the programmatic and financial operations of their respective programs. Title VI of the Clean Water Act allows the CWSRFs to manage their programs as state programs, making the basic decisions on what gets funded, when,

and under what conditions. States have made the decision whether or not to leverage. States have ranked eligible projects and determined the priority for providing financing.

The corpus of the CWSRF since the beginning of the program has been treated as state funds. Essentially, once the capitalization funds were first used then all repayments, interest earnings, fee revenues and bond proceeds have been treated as state, not federal, funds. Now at issue is whether federal controls are to be placed on the use of the corpus which has accumulated over the last 25 years. The implications are significant. Will federal control over the corpus extend to assistance agreements, investments and bond issues of the CWSRFs? What are the ramifications for state bond issues if there is a risk of future federal requirements affecting the use of bond proceeds? How will this potentially impact the cost of borrowing? All important questions raised by the prospect of expanded federal control over what have been state run programs, subject to federal oversight, but with the management and decision-making in the hands of the states.

The tremendous success of the CWSRFs, as state run programs able to meet their particular water quality needs, argues for a careful assessment of where this trend toward a federalization of the program will ultimately lead. The result may be a SRF program that is a less productive and less attractive source of financing in a time of escalating water infrastructure needs.

Thank you for the opportunity to provide the views of State SRF managers. We shall look forward to working with the Subcommittee as it continues its work to support water infrastructure development.

The Authoritative Resource on Safe Water SM
American Water Works Association

Innovative Funding of Water Infrastructure

Presented by
Mr. David Weihrauch
Treatment Plant Manager
City of Oxford, Ohio

Before the House Subcommittee on Water Resources and Environment
March 21, 2012

Good morning, Chairman Gibbs and members of the Subcommittee. My name is David Weihrauch, and I am treatment plant manager for the drinking water utility serving the town of Oxford, Ohio. I very much appreciate this opportunity to offer input on a draft bill the subcommittee is considering, the Water Infrastructure Finance and Innovation Act, commonly called WIFIA. I am here representing the American Water Works Association, which has done ground breaking work to define the water infrastructure needs facing cities like Oxford and in helping to describe innovative financing tools like WIFIA.

Because this hearing adds to the record that was opened at the Subcommittee's first hearing on this subject on February 28, this statement concentrates on a number of questions that were raised in that discussion. First, however, I want to reiterate that the American Water Works Association strongly supports the approach to WIFIA reflected in the bill the subcommittee is considering. We are very excited about such an innovative new financing tool, and we urge the Subcommittee to see this bill introduced and moved through the legislative process as soon as possible on a bipartisan basis, without changes that would dilute its value to the nation's water and wastewater systems.

At the first hearing the Subcommittee learned about AWWA's new report titled, "Buried No Longer: Confronting America's Water Infrastructure Challenge." That report, which was released on February 27, marries the most comprehensive data ever assembled regarding the nation's buried drinking water pipe network to data from the US Census Bureau, to estimate the needs our nation faces to replace pipes as they come to the end of their useful lives and to accommodate population growth. It shows that those needs total at least $1 trillion dollars over the coming 25 years. I want to emphasize that this is $1 trillion for buried drinking water assets only. Above-ground drinking water facilities such as storage tanks, reservoirs, and treatment plants will add to the total. And waste water and storm water related investment needs are expected to be just as large over the same period. I do not believe that any serious person disputes the fact that the nation faces immense water-related investment needs or that public health, the environment, the economy, fire protection, and our quality of life all depend on the infrastructure we are talking about.

Nor should anyone believe that simply putting off this investment offers a solution. In fact, as the recent AWWA analysis shows, any temptation to delay needed investment presents a stark choice: make the investments on time, or accept deteriorating levels of water service, including more main breaks and the emergency repairs they require. Make the investments on time, or face even steeper investments when the time inevitably comes at which a complete replacement of pipes simply cannot be delayed. The old adage that "a stitch in time saves nine" is nowhere truer than in the case of water infrastructure investment.

I would be remiss if I didn't take this opportunity to address a number of key questions raised at the first hearing. For example, a question was raised concerning whether WIFIA should be directed to or through the State Revolving Funds. The American Water Works Association believes that tying WIFIA to the SRFs in this manner would be a very bad idea, for a number of reasons.

First, it is important to keep in mind that WIFIA is designed to supplement the SRF by addressing needs that are not well addressed, if at all, by the SRFs. State Revolving Funds generally do not or cannot offer large amounts of assistance to any individual project. In the drinking water program, the record shows relatively few loans in excess of $20 million, not counting funds made available under the American Recovery and Reinvestment Act, when unusually large amounts of money had to be spent quickly. The SRFs are exceptionally valuable tools for smaller and medium water projects that could struggle to repay loans at Treasury rates or which need other kinds of assistance or subsidy. But tying WIFIA to SRF defeats the very purpose for which WIFIA was designed. WIFIA can't do what the SRF does and vice versa. And in contrast to the SRF, WIFIA loans must be repaid to the Treasury. WIFIA and the SRF are different tools which need to be deployed in different ways.

Moreover, tying WIFIA to the states would reduce the amount of low interest loans that could be delivered to water projects. We already see, in the case of the drinking water SRF, that states take an average of 15-20 percent of appropriated funds "off the top" to help defray the cost of their drinking water primacy, training, and similar programs. Those programs are important and deserve support, but that support should be provided directly, not by bleeding WIFIA funds away from water project finance.

Allowing states to run the WIFIA program and take out the cost of program administration would also increase the program's cost to federal taxpayers. Not involving states in the administration of WIFIA minimizes its administrative complexity and cost. WIFIA loans would be repaid at Treasury interest and the record shows there is essentially no risk of default for these kinds of projects, so the program's leverage is high. In contrast, every dollar taken out of the program by states to help administer WIFIA at the state level would be a dollar that is not repaid to the Treasury, and would reduce leverage. What is now designed as an innovative, lean, cost effective, and highly leveraged program would become much less so.

In addition, running WIFIA through the states would significantly dilute the funds available, since each state would have to be guaranteed a certain percentage of the available funds. That approach is inefficient, and ensures that projects of lesser significance in some states will receive loans, while projects of truly great "national and regional significance" in other states will not. We urge you to ensure that WIFIA is administered at the federal level for the benefit of projects having national or regional significance, even if that means not every state will receive loans for an approved project each year.

Another important point is that many states are limited or prohibited in their ability to assist the largest utilities. Many states have either legislation or policy that limits or forbids assistance to their largest water systems. That may be understandable, given the limited capitalization of the SRFs, particularly the drinking water SRF. WIFIA would specifically address those larger projects that are too big for most SRFs to handle, but are just as important as smaller projects.

Moreover, about half of the states do not or cannot offer SRF assistance to investor owned utilities. WIFIA's purpose is to lower the cost of project finance to benefit customers, regardless of the type of utility serving them, and we support the inclusion of private systems in the program. State public service commissions, which regulate the rates of investor-owned utilities, take active steps to ensure that the benefits of lower cost financing inure to the customers of private water systems, not their owners. We do not support excluding private systems from the WIFIA program, as many states would have to if they operated WIFIA.

Fortunately, the draft bill does allow for states and smaller water systems to directly benefit from the WIFIA program. States may aggregate a number of smaller projects into a WIFIA application. This has at least three noteworthy advantages: First, it essentially allows states to leverage their SRF capital base. Second, it allows smaller projects to benefit from low Treasury rates in the same way that larger projects do. And third, it allows states to move larger projects and "pools" of smaller projects out of the SRF applicant pool and into the WIFIA pool, thereby reducing competition for SRF funds. This would allow states to concentrate their available resources on their own highest SRF priorities.

A related question at the last hearing concerned whether WIFIA would have the effect of taking money away from the established State Revolving Fund (SRF) programs. WIFIA neither needs to be nor should be funded at the expense of the SRFs. WIFIA was explicitly designed to operate as a complement to the SRF programs, which are highly effective and should be fully funded. The SRF program – at least the drinking water SRF – is aimed primarily at smaller water systems that need help with investments in order to comply with safe drinking water standards. Those needs are critical and funding for the SRFs should not be reduced. WIFIA is designed to address an entirely different problem, namely the need for lower-cost financing for large projects, so that they can proceed more quickly with lower impact on the customer's bill.

There was also a question at the first hearing about the role of private capital in the WIFIA program. AWWA does not support allowing private investors to directly access WIFIA loans. But a private firm that enters into a concession agreement with a utility involving project finance should be able to access WIFIA with (and only with) the sponsorship of that utility. For example, if my utility entered into a Public-Private-Partnership which involved a concession to finance and build a new treatment plant for the City of Oxford, the firm that undertook that concession should be able to apply for WIFIA funds under my sponsorship. This kind of project is increasingly attractive to utilities, and is sometimes called a "DBFO" project, for Design, Build, Finance, and Operate. Generally such projects are undertaken as concessions from the utility for a fixed period, say 30 years, after which the assets covered by the agreement transfer to utility ownership. Under the right circumstances, such projects can offer significant advantages to the utility and its customers. In such cases, we believe it makes sense to allow the private firm to apply for WIFIA financing under the utility's sponsorship, making the benefits of low cost finance available to the utility's customers, even though the financing goes to the concessionaire.

In summary, Mr. Chairman and members of the Committee, the American Water Works Association strongly supports the draft bill as written.

As we said at the first hearing, AWWA firmly believes the cornerstone of water infrastructure finance is, and should remain, local rates and charges. That said, there are periods when large capital projects must be undertaken. About 70 percent of American communities use municipal bonds and other forms of debt to finance such projects. Being able to lower the interest rate by even a small amount in a multi-million-dollar, 30-year loan adds up to significant savings in the cost of an infrastructure project. It allows communities to do more with less, and to rebuild American infrastructure at lower cost to our customers.

It is worth noting that these investments also create jobs. In fact the US Department of Commerce Bureau of Economic Analysis (BEA) estimates that for every dollar spent on water infrastructure, about $2.62 is generated in the private economy and 3.68 jobs are added to the national economy. Moreover, these national benefits come on top of improved public health, a cleaner environment, stronger fire protection, and a better quality of life in the community.

WIFIA will allow our nation to build more water infrastructure at less cost, will facilitate investments that are important to the nation's long-term future, and will help our economy both now and in the long run. To top all of that, we will get a cleaner environment, better public health and safety, and a stronger quality of life for ourselves and our posterity.

Thank you again for addressing this important issue. AWWA stands ready to help you in any way it can in securing the earliest possible passage of this legislation.

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The Future of Alternative Water Supplies: Financing Water Infrastructure Projects
Testimony of Stephen E. Howard (Barclays Capital)
PABs/Innovative Financing Tools for Water Infrastructure Projects – March 21, 2012
Subcommittee on Water Resources and Environment

Good afternoon Chairman Gibbs, Ranking Member Bishop, and members of the subcommittee. I thank you for the opportunity to testify today. My name is Steve Howard, and I am a Director at Barclays Bank PLC, based in New York. I have more than 25 years of experience financing a broad range of infrastructure projects for public and private clients across the country. My project finance experience spans all sectors, including water, wastewater, solid waste, environmental, transportation and social infrastructure. .

Today we have been invited by the Chairman of the Subcommittee on Water Resources and Environment to testify on Innovative Financing Approaches for Community Water Infrastructure Projects. Our testimony today will focus on a combination of public and private funding investment solutions that coupled together will foster local communities to provide ongoing financing for water infrastructure projects.

There is a broad spectrum of project financing options for new infrastructure projects. Tax-exempt bonds, taxable bonds, private equity and/or some combination of these financing sources can be used to minimize the project financing and development costs over the term of the financing for the project. Tax-exempt bonds can be either governmental purpose bonds, which limit private participation, or private activity bonds, which allow for private participation. Thus, private activity bonds are typically used on projects financed as public-private partnerships.

For infrastructure projects that are publicly owned and financed with tax-exempt governmental purpose bonds, there is no cap on the amount of bonds that can be issued for any specific sector. Conversely, for infrastructure projects that are publicly owned and financed with tax-exempt private activity bonds, some sectors are subject to caps on the amount of bonds that can be issued, specifically public facilities, water/wastewater, surface transportation, housing, education and healthcare. The only publicly owned projects financed with tax-exempt private activity bonds that are not subject to bond issuance caps are in the solid waste, airport and port sectors. Infrastructure projects that are privately owned and financed with tax-exempt private activity bonds are subject to bond issuance caps only if the projects are in the water/wastewater, solid waste and housing sectors.

Based on experience in the solid waste sector, the elimination of the private activity bond issuance cap for water/wastewater projects could increase and expedite the construction of new water/wastewater infrastructure. In the 1980s, the municipal solid waste sector experienced declining landfill capacity and rapidly increasing disposal costs. The US government's response was to eliminate the tax-exempt private activity bond issuance cap on municipal solid waste projects. The Tax Reform Act of 1986 eliminated the bond issuance cap and made private activity bonds an available funding source for solid waste projects. Between 1986 and 2010, approximately $46.7 billion of bonds were issued in the solid waste industry, of which 56% in face amount were tax-exempt governmental purpose bonds, 40% in face amount were tax-exempt private activity bonds and 4% in face amount were taxable bonds.

The elimination of the tax-exempt private activity bond issuance cap for solid waste infrastructure projects serves as an example of what we believe could happen should the cap be

removed on the water/wastewater sector. With the elimination of the bond issuance cap for water/wastewater projects, it is reasonable to expect that $1 to $2 billion of private activity bonds

would be initially issued annually and could double or triple annually over time as the public-private partnership water/wastewater industry matures. The actual issuance of tax-exempt private activity bonds for water/wastewater projects would be based on the number of projects that are ready to be financed, particularly where the public sector wants the private sector to assume a greater role in assuming development, technology and performance risk. Since 1986, private activity bond financing has equalled only 1% of total water/wastewater issuance. An elimination of the bond issuance cap would increase this percentage and ultimately diversify the tools used to finance water/wastewater projects.

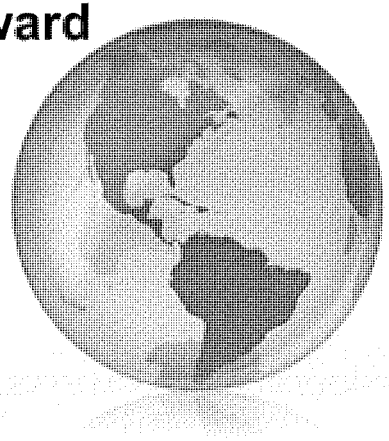
Removing the cap on issuance of tax-exempt private activity bonds used to finance water/wastewater infrastructure would allow more projects to be structured as public-private partnerships. Public-private partnerships not only optimize the development, construction and long-term operation of the project, but also apportion sharing of risks between the public and private partners. Long-term private partner risk assumption and equity investment for water/wastewater projects would increase with the use of private activity bonds and benefit all public and private participants developing projects to meet water quality infrastructure needs.

Barclays appreciates the opportunity to testify today. We look forward to continue to work with the subcommittee. Thank you.

The Future of Alternative Water Supplies:

Financing Water Infrastructure Projects

Testimony of Stephen E. Howard
Director
Barclays



March 21, 2012

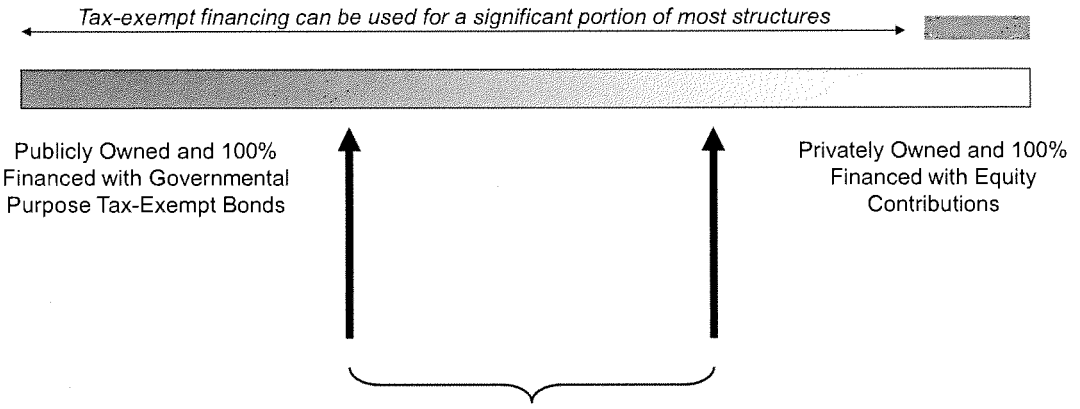
Financing Options for New Infrastructure Projects

- Tax-Exempt Bonds
  - Governmental Purpose Bonds: Limit private participation
  - Private Activity Bonds (PAB): Allow private participation
- Taxable Bonds: Unlimited use, but potentially higher all-in cost
- Private Equity: Can be used in conjunction with certain types of Tax-Exempt Private Activity Bonds and all Taxable Bonds

Tax-exempt private activity bonds are typically used in project financed public-private partnership transactions and are repaid by rate payers through retail or wholesale user fees.

Financing Options for New Infrastructure Projects

- There is a broad spectrum of project financing options:

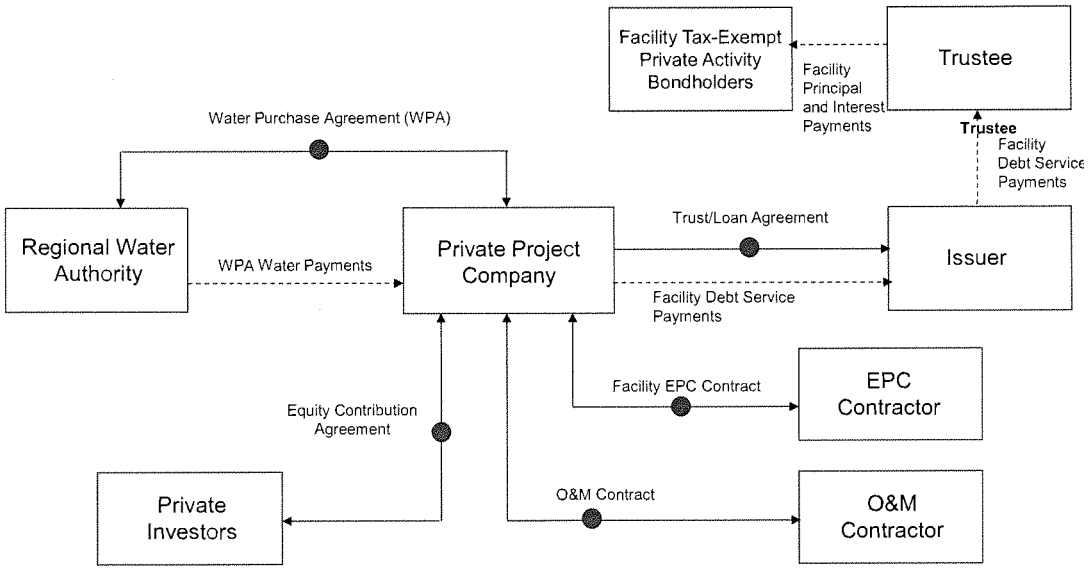


Between these two extremes, a variety of financing structures utilizing tax-exempt private activity bonds, taxable bonds and equity funding are possible to help optimize project development.

Tax-Exempt Financing Availability

Type of Tax-Exempt Bond	*Governmental Purpose Bond Cap Not Required*	*Private Activity Bond Cap Not Required*	*Private Activity Bond Cap Required*
Ownership	Public	Public	Private
Asset Class			
Public Facilities	✓		
Water/Wastewater	✓		✓
Solid Waste	✓	✓	✓
Airport	✓	✓	
Surface Transportation	✓		
Ports	✓	✓	
Housing	✓		✓
Education	✓		
Healthcare	✓		

Contractual Agreements



Projected Water/Wastewater PAB Issuance

- In order to project the amount of water/wastewater PAB issuance if PAB cap allocation is eliminated, an analogy can be made with the municipal solid waste sector
- The municipal solid waste sector faced a "crisis" in the early 1980's due to declining landfill capacity and rapidly increasing disposal costs
- The US Congress responded to this crisis by eliminating tax-exempt private activity bond cap for municipal solid waste disposal projects in the Tax Reform Act of 1986
- As a consequence, nearly $20 billion of PABs have been issued since 1986 to help fund the development of new infrastructure to help solve the municipal solid waste disposal crisis

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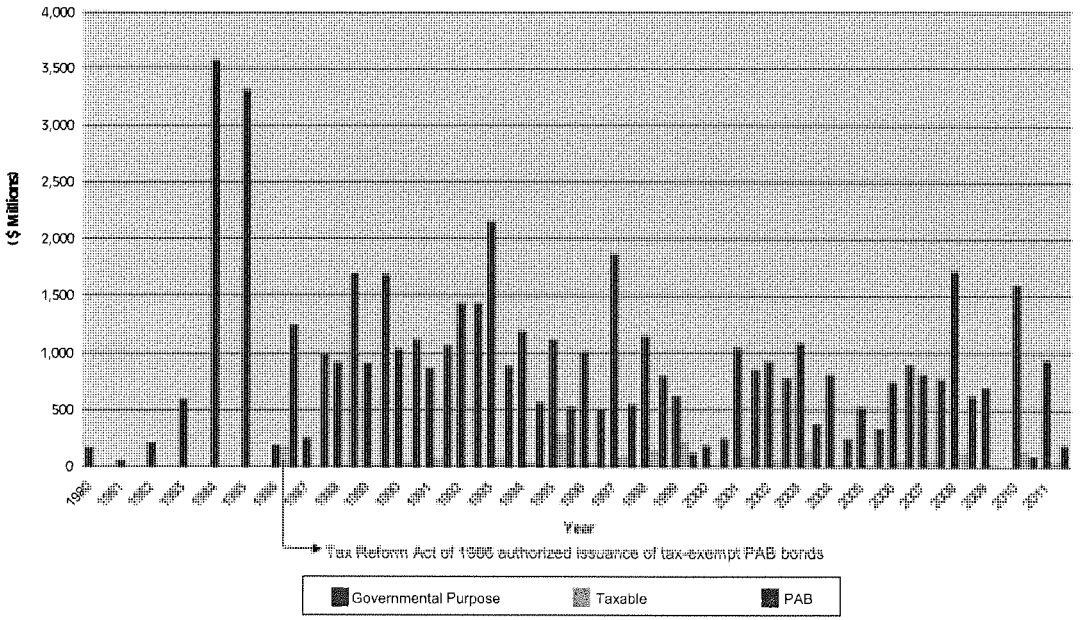
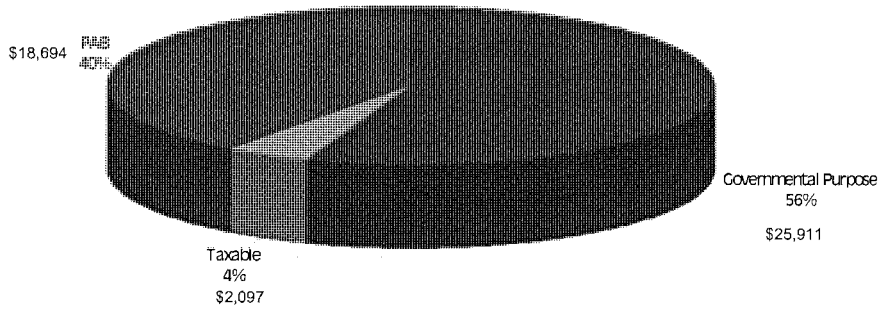
Solid Waste Historical Data

Transaction Amounts over Past 30 Years



Solid Waste Historical Data

Solid Waste Transaction Allocation ($ Millions)
Total Issuance: $46,702 Billion
Years: 1986-2011

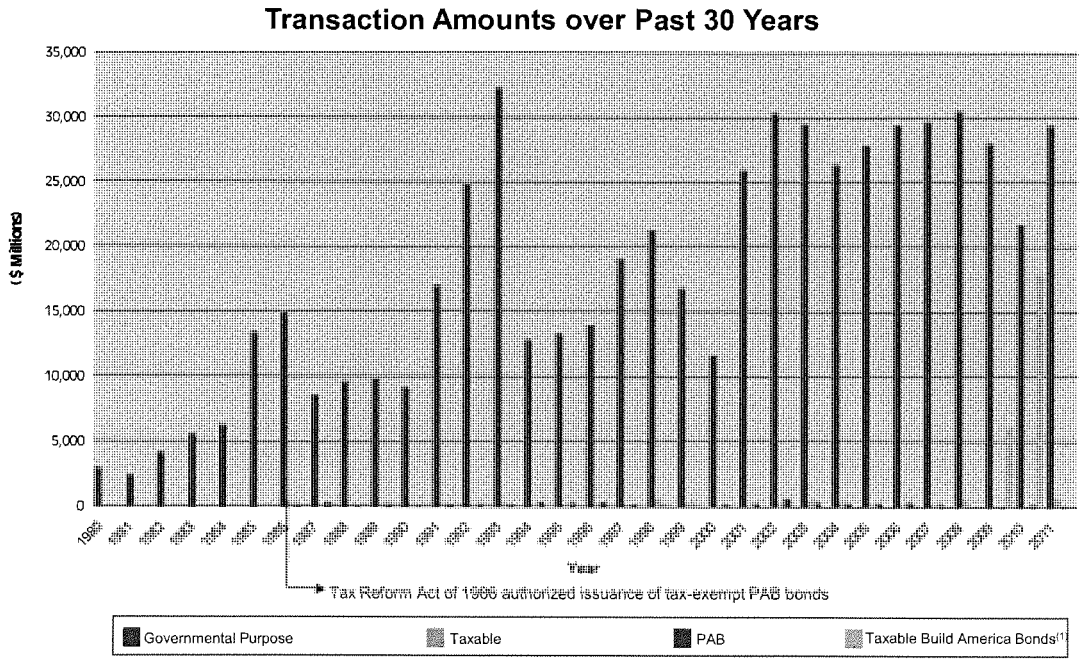


Average Issuance/Year ($ Millions)	
PAB	$720
Governmental Purpose	$1,000
Taxable	$80

Projected Water/Wastewater PAB Issuance

- Solid waste PAB issuances have equalled 40% of total solid waste issuances compared to 1% of water/wastewater since 1986 as shown on the next two slides
- Average total solid waste PAB issuances/year equaled $720 million compared to $220 million for water/wastewater since 1986
- Based on experience in the solid waste sector, we believe the elimination of the bond cap for water/wastewater project PAB issuance would significantly increase and help expedite construction of new water/wastewater projects
- Actual issuance of PABs for water/wastewater projects will be based on the number of projects ready to be financed, particularly where the public sector wants the private sector to take a greater role in assuming development, technology and performance risk
- With the elimination of bond caps for water/wastewater projects, it is reasonable to expect that $1 to $2 billion of PABs could be issued annually and could double or triple over time as the PPP water/wastewater industry matures

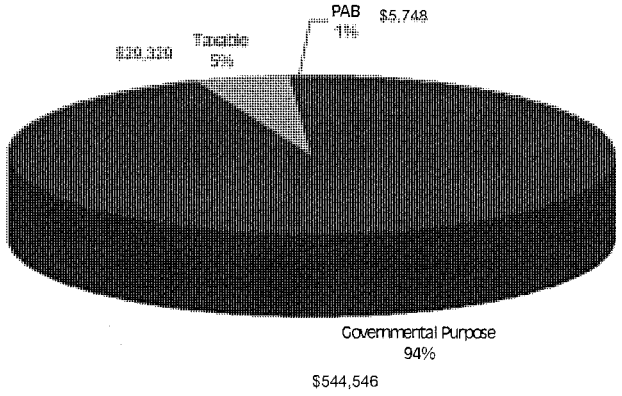
Water/Wastewater Historical Data



(1) Taxable Build America Bonds did not allow for private investment.

Water/Wastewater Historical Data

Water/Wastewater Transaction Allocation ($ Millions)
Total Issuance: $579,623 Billion
Years: 1986-2011



Average Issuance/Year ($ Millions)	
PAB	$220
Governmental Purpose	$20, 940
Taxable	$1,130

Projected Water/Wastewater PAB Issuance

- Tested and proven tax-exempt bond financing structures exist to finance public-private partnerships for water/wastewater infrastructure
- Projects can be structured as public-private partnerships to optimize development, construction and long-term operation, as well as appropriate sharing of risks between the public and private partners
- Highly-regarded private companies active in the water/wastewater market facilitate the structuring of long-term public-private partnerships
- Long-term private partner risk assumption and equity investment for water/wastewater projects could increase with the use of PABs and benefit all public and private participants developing projects to meet water quality infrastructure needs

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Testimony of David Dornbirer

Sector Vice President, Energy and Water Services Division

CoBank

Before the Subcommittee on Water Resources and Environment

Committee on Transportation and Infrastructure

U.S. House of Representatives

On

A Review of Innovative Financing Approaches for

Community Water Projects – Part 11

March 21, 2012

Chairman Gibbs, Ranking Member Bishop and Members of the Subcommittee - good morning, and thank you for the opportunity to be with you this morning. I am Dave Dornbirer, Sector Vice President, Energy and Water Services Division of CoBank and manage a $1.1 Billion portfolio of water, wastewater and solid waste loans. CoBank is a national cooperative bank serving vital industries across rural America. The bank provides loans, leases, export financing and other financial services to agribusinesses and rural power, water and communications providers in all 50 states. The bank also provides wholesale loans and other financial services to affiliated Farm Credit associations serving more than 70,000 farmers, ranchers and other rural borrowers in 23 states around the country.

CoBank is a member of the Farm Credit System, a nationwide network of banks and retail lending associations chartered to support the borrowing needs of U.S. agriculture and the nation's rural economy. Headquartered outside Denver, Colorado, CoBank serves customers from regional banking centers across the U.S. and also maintains an international representative office in Singapore. Many rural Americans depend on CoBank's water customers every time they turn on the tap. Not only are many of our customers in the business of providing clean, safe drinking water to rural areas, but others also process wastewater and deliver other services.

It is an honor to have been asked to testify this morning to provide an overview of Project Finance in the water sector. CoBank is the largest U.S. bank lender to the water industry and has over 23 years experience in providing a variety of different financing structures for water and wastewater utilities, including use of federal guarantees from the United States Department of Agriculture. CoBank provides a wide variety of financing ranging from long-term fixed rate loans, working capital revolving loans, project financing for both construction and term loans,

leasing and interest rate hedging products. We have a history of lending along side of State and Federal agencies, which has provided us an informed viewpoint of the pros and cons of various government financing programs.

As others have already mentioned, the need to upgrade our nation's water infrastructure is critical. The ability to leverage all resources – public and private – to provide the financing necessary for our nation's water systems is an admirable goal. There are different approaches to financing water infrastructure and various conduits through which to do so. While CoBank has extensive experience throughout the water sector, I will focus today's testimony on a proven public-private partnership structure whereby private capital is invested to meet the needs of a municipal system, either water or wastewater, and spreading the risks of such an undertaking among the different interest groups.

In a recent press release, the American Council of Engineering Companies California remarked that the state's policy makers need new ideas for solutions on how to improve California's infrastructure and better leverage the state's extremely limited capital. It went on to say "Public-private partnerships are (a) particularly useful tool for delivering new water supply projects." This same concept can be expanded to include other water and wastewater infrastructure.

"Project Finance 101"

I was asked to provide a "Project Finance 101" presentation for the committee. (Refer to the Attachment to this testimony for amplifying information.) To begin with, "project-finance" is not the same thing as "financing projects." When I talk about project finance, I am referring to the long-term financing of discrete assets of water and wastewater infrastructure owned by a single purpose company. It can be used to finance a treatment plant, water storage facility or pipeline, though it can be expanded to include an entire water system. The financing of that entity is dependent upon its projected cash flows. Though there are innumerable variations, each has the same basic characteristics. And, the overriding factors are the identification of the risks of the project and the proper allocation of those risks among the project parties. You want each party assuming risks that it is best suited to manage.

I'll start by providing an example of a project-finance deal, and then explain the various financing considerations of a typical deal and refer to my example for context. Project finance has been utilized for decades in this country to develop infrastructure in the power, oil and gas, solid waste and transportation sectors. This structure is widely used for water and wastewater projects around the world, but it has not gain much acceptance in the United States to meet our mounting needs.

The City of Santa Paula (the City) sits in a citrus-growing valley 65 miles north of Los Angeles. In 2007, the City's almost 70 year-old wastewater treatment facility faced severe compliance fines and needed to be replaced quickly. However, the City was uncertain as to a dependable source of funding, cost and schedule to achieve its compliance mandate. Realizing traditional delivery methods of financing would not provide adequate certainty; they chose to utilize a public-private partnership.

In 2008, the city contracted with one entity, Santa Paula Water (the project company), which was an alliance of PERC Water Corporation and Alinda Capital Partners, to design, build, operate and finance the new facility. The speed of Alinda Capital's investment enabled construction to begin immediately and PERC's expert management delivered the plant on budget seven months ahead of the compliance schedule. The City did not begin paying its service fee to Santa Paula Water until the plant was in full operation and in compliance with its waste discharge permit. It is likely this would not have been possible under a traditional method of project procurement.

The City Council understood that this structure would provide long-term rate and regulatory certainty for the citizens of Santa Paula. For the next 30 years, the City would have certainty of compliance, certainty of capacity and certainty of cost.

If the City had taken a more traditional finance route of grant funding, government loan programs and/or the municipal bond market, they would have had difficulty in trying to raise money when funds were needed to complete construction within the regulatory timeframe. The facility was 100 percent privately funded and the City did not pay anything toward the facility until after it was in full operation. The City now pays a monthly service fee that covers 30 years of capital replacements, debt service, operations and maintenance and the option to expand capacity of the plant. The City maintains responsibility for the wastewater collection, customer contact and billing, certain permits and user rates. In 30 years, the facility will be returned to the City at no cost in good working condition. In addition, the City has the right to purchase the plant from the Santa Paula Water at a predetermined price. This approach freed up valuable municipal financing capacity for the City to pursue important planned improvements, in addition to minimizing the construction and operating risks associated with the project.

This project was the first of its kind of financing. CoBank and DZ Bank arranged the debt financing package for the project in the height of the credit crunch during the recession.

The facility is considered one of the more energy-efficient and most cost-effective of its kind in the world. Energy costs are now 38% lower than what was originally bid. The $20,000 a month savings is split evenly between the City and Santa Paula Water. The plant is a water recycling facility because the effluent produced by it is treated to such a degree that it can not only recharge the local aquifer but it is safe enough to irrigate community parks and golf courses. The project not only exceeds its requirements but produces a commodity that is expected to have financial value in the future.

This type of project takes a long-term approach. Often times there can be a disconnect between engineering a plant design, construction of the plant and operation of the plant. But PERC Water's innovative approach incorporated all three elements from the start, enabling it to accurately determine the construction budget and the certainty of the cost to operate the plant for the life of the contract. They understood that their job is not done for 30 years. This holistic approach provides flexibility and incentives to invest in infrastructure over time.

The Santa Paula project finance deal was successful due to a variety of factors. The City faced time constraints, compliance deficiency, technical complexity, financial uncertainty, debt limitations, and importantly – political will. Part of the political will was to realize that consumer

rates needed to be raised. Raising rates is never an easy task, but the rates had not been raised for over 20 years and the aging infrastructure had suffered neglect as a result. The average increase per household is about $20 per month to support needed upgrades to the wastewater system.

It is important to note that government financing - state revolving funds, federal direct loans or grants most often have lower stated interest rates, but much of the risk falls to local, state and/or federal taxpayers. Loan guarantee programs do a better job of risk sharing as the lenders utilizing the guarantee are liable for a portion of the losses should they occur. Under a project finance structure, risks that were once only held by the user or the taxpayer are mitigated by other parties. The flexihility that project finance provided for the City of Santa Paula allowed it to accomplish its goals in record time and with appropriate safeguards in place because Alinda Capital and PERC Water assumed risks they could control and, in turn, were able to determine the appropriate underwriting of the project.

Onto Project Finance 101: A single purpose entity is formed to develop, build and own the project. At the beginning stages of the deal, the parties – the municipality, the private equity sponsor, and the management team decide how the project will be structured. This entity can be wholly owned by the private equity sponsor of the project or it could form a partnership with the municipality and jointly own the project. By forming a standalone special purpose entity, all the contract parties can look only to that project company for the enforcement of contracts. This limits the liability of the project sponsor as well as the municipality if it is a joint owner. From the point of formation of the project company all the work begins with negotiating and executing the contracts that give the project life.

Lenders to the project company are relying solely on the contracts executed by the project company and the cash flows generated by it. Legal due diligence is key to understanding the rights and obligations of each contract party and the enforceability of each contract. The lenders are basically loaning against the contracts because those contracts govern the construction budget, the expected revenues, the operation and maintenance of the plant and the financing. The lenders will size their loan amount based on the expected cash flows generated by the project company, not the balance sheet of the project company.

The heart of a water project finance deal is the DBOF agreement, which stands for Design, Build, Operate and Finance, between the project company and the municipality. In the case of Santa Paula, this is a 30-year contract. The DBOF lays out who is responsible for what—the specifications of the plant, the delivery schedule, damages for failure to uphold contract provisions, the revenue from the rate payers to the project company, permits, dispute process, design changes, future expansion, and transfer of ownership. Because the project company is exclusively dependent on user fees, the municipality will be required to segregate those payments from other departments. In addition to rate setting, the municipality may also agree to be responsible for those operating costs of the plant that it can control. The City of Santa Paula agreed to a pass-through of electricity and sludge disposal costs, however, the DBOF spelled out maximum power usage limits, which mitigate the City's liability. As water and wastewater facilities are strictly regulated by environmental agencies, it is vital that the proper party, the municipality or the project company, be responsible for meeting permit requirements over which it has the greatest control.

If the DBOF is the heart of a project, rate-setting is the lifeblood. Considerations include rate-setting authority, the essential service nature of the project, the rate-setting and rate dispute process, public utility commission involvement, potential for rate shock, inflation adjustments, mix of ratepayers (residential, commercial, industrial, municipal), creditworthiness of the sponsoring municipal agency, and community demographics. The source of project revenue should be transparent and easily modeled in order to obtain the most attractive financing terms benefiting the project and subsequently the ratepayers. Simplicity is also important. The 30-year rate schedule for Santa Paula is on one sheet of paper.

Aside from the financing documents, which I will touch on later, the next most critical contract is the construction contract. This can have various names, such as EPC, which stands for engineering, procurement and construction. While these contracts can take on many different forms and include more than one contract party, it is simpler to highlight the best case scenario where a firm provides a fixed-priced, turnkey contract. Here, it is the EPC contractor's sole responsibility to design and deliver the plant per the specifications (mutually determined by the project company and the municipality) on a contractual schedule and for a fixed price. Key considerations for an EPC contract and the contractor include experience in this field, realistic budget and construction schedule assumptions, quality of subcontractors, financial wherewithal to meet its obligations, contingencies, liquidated damages, dispute process, technology risk, permitting, and equipment delivery and warranties.

Next is the operations and maintenance, or O&M, agreement. This should be a fairly straightforward contract. The project company wants to ensure the operator has sufficient experience running this type of plant and the process being used. It is important the operator has the financial wherewithal to stand behind its contractual obligations. Often times there will be incentives for the operator to manage the costs of operating the project within a lower and upper bound. Having confidence in the O&M costs adds to the stability of cash flows, which improves the credit quality of the project. Water and wastewater plants typically use proven technology and processes, and, therefore, operational risks are normally considered low. However, the risks should be mitigated with O&M reserve funds (in case it is more expensive to run than originally projected), major maintenance reserves for schedule overhauls and equipment replacements along with warranties that match expected performance.

At Santa Paula, the EPC and the O&M contracts were melded into a DBO agreement between PERC Water and the project company. PERC took responsibility for the design, building and operation of the entire project. I believe this to be an ideal model because PERC knew it had to operate the plant it designed and therefore was in the best position to model the whole lifecycle cost of the plant, including major maintenance and future expansion. Under more common procurement and delivery methods where a "project is financed" rather than "project financed" it isn't always clear if the entire lifecycle costs are properly modeled leading to potentially more risk for a municipality down the road. The DBO arrangement also gave the City a single point of contact during and after construction, which facilitates better coordination between the City and the project company.

Having laid out a typical project structure, I will now address the finance part of project finance. The provisions of the various contracts that I mentioned earlier are the very considerations

lenders analyze when structuring the financing, with a few additions. A crucial element is the financial and business profile of the main project sponsor(s). The firm providing the equity into the project should demonstrate commitment to the water sector. These projects are complicated to develop and involve a lot of patience and time. Secondly, the equity sponsor needs to be deep-pocketed in relation to the size of the project. Even though contracts may state the required amount of hard dollars to be invested in the project company, one can sense if the sponsor is committed and can ensure the project crosses the finish line. At Santa Paula Water, Alinda Capital was such a sponsor. They not only have adequate capital to invest and experience in the water sector, but there are a number of project finance professionals in the partnership group and on the deal team.

The project sponsors develop a comprehensive base-case financial model that captures in great detail the expected costs and cash flows of the project from construction through the term of the DBOF. Lenders vet that model analyzing all the variables, including the ability to pay principal and interest, before determining the appropriate level of debt the project company can support. The leverage, or the percentage of debt, can be as high as 80% for projects that prove to have very stable and predictable cash flow generation. The amount of debt financing and the cost of that debt depend on proper risk allocation through the contractual structure, solid sponsorship, equitable contracts, sufficient rates, solid demographics, operational cost certainty, adequate reserves, community acceptance, comfort with the contractors and the essential service nature of the facility.

Additional components of the lenders' due diligence process are hiring an independent engineer, an insurance consultant and legal counsel. The independent engineer is the lenders' proxy in the evaluation of the plant design, construction contract and budget, project financial model, and permitting, along with periodic monitoring of construction and operations. The insurance consultant analyzes the policies procured by the various project parties to determine adequate coverage for loss, business interruption, liability, etc. Lenders' counsel analyzes all the project contracts and regulatory issues and drafts and assists in negotiating the loan agreement. All of these costs are borne by the project company.

The resulting loan is to the project company. The loan amount plus the sponsor's equity will cover all the costs of building the plant. The lenders will not have recourse to the project sponsor, other than enforcing the sponsor's equity injection, or to the municipality. This is the crux of risk sharing. The lenders are willing to shield the municipality and share in the risk through proper due diligence of the project structure. Ultimately, the goal of the contractual structure in a project financing is to leave only operating risk and counterparty risk with the project company and its lenders and owners. As long as the municipality does not cause a default under the DBOF for not producing the agreed upon revenue, which, in turn, could cause a default under the loan agreement for inadequate debt service, it is protected from problems caused by the project company. The public-private partnership using a project finance structure delivers certainty to and boxes the risk for the municipality that a more conventional financing of a project does not.

Again, assuming it is a well structured project, there is quite a bit of flexibility in the debt's terms and conditions. Banks can fund construction and provide term financing out to 20 years. The

loan agreement can be amended to allow the debt to remain in place if the municipality exercises its right to purchase the plant prior to the expiration of the DBOF. Once construction is complete, the plant has passed acceptance testing and begun full scale operation, other long term providers of debt capital like insurance companies would be interested to refinance the bank debt and extend the financing further towards the end of the DBOF term. Bank lenders will require that the debt be fully repaid prior to termination of the DBOF so that there is no debt assumed by the municipality.

Lenders will be secured by mortgaging the plant and filing liens on all the assets of the project company. Non property, plant and equipment assets include future cash flows, bank accounts, contracts, and intellectual property. If the project company defaults under the terms of the loan, the lenders reserve the right to step in and replace the operator or seek other remedies in order to return the project to sound operation.

Major advantages of a project finance vehicle are the flexibility of the loan terms discussed previously and the flexibility of debt sources. The structure can incorporate government grants and co-lending by either state and/or federal loan programs. Commercial lenders lending alongside government programs require an inter-creditor agreement that outlines the rights of each class of lender. Another advantage is project financing saves the bonding capacity of the municipality because it is not the party incurring the debt. Also, lenders will typically not require a rating from a credit rating agency, which eliminates a significant cost. As the tax-exempt municipal bond market functions on credit ratings, project finance opens an avenue for smaller systems to pursue relatively large projects assuming the financing considerations explained above are adequately addressed. Projects funded through government programs sometimes incur onerous requirements that commercial lenders do not require. These programs carry administrative and subsidy fees comparable to the financing fees charged by financial institutions to arrange debt financing. In the country's current low interest rate environment, commercial rates can be competitive with tax-advantaged rates, particularly for municipalities that are unable, or do not wish, to secure a credit rating. A potential disadvantage of project finance, but similar to conventional financing, is the transaction costs are about the same regardless of the size of the project. For example, assume there is $300,000 in lender due diligence costs, which sum the expenses of the consultants and legal counsel outlined earlier. If the project plant has a capacity of 10 million gallons per day (MGD), the project's due diligence costs $3,000 per MGD. But, if the project is only 1 MGD, then those costs work out to $30,000 per MGD. As a result, Project finance may not be the appropriate approach for these very small water systems.

Impediments

I was asked to comment on some of the barriers to innovative financing similar to the Santa Paula example. First of all, the Santa Paula public-private partnership is just a different way of doing business and it will take time for other water systems to become accustomed to alternative structures of financing. Many water systems are comfortable with the traditional approach of issuing tax-exempt bonds and applying for funding through federal and state programs. Most public water systems have carried all the risk for project improvements and lack experience in sharing risk with private entities. Historically the financial risk of the water infrastructure has

been carried largely by the federal and state funding programs, not by the private sector. Additionally, projects are delayed while municipalities hold out hope that they will be eligible for grant funds and/or government program loans. There is a lost opportunity to waiting as it decreases project certainty, particularly in an inflationary environment, and delays the needed improvements in water quality or wastewater service. Exploring public-private partnerships requires a paradigm change for tens of thousands of publicly-owned water systems and may take time to be widely adopted.

Direct and Guarantee Loan Programs

As the Committee explores developing a new direct and guarantee loan program, please keep in mind that CoBank is committed to being a dependable provider of credit and other financial services to water systems across rural America. We would welcome an opportunity to participate in a new guarantee loan program or a direct loan program that includes a private sector match to meet the financing needs of our nation's water infrastructure. With over 52,000 different water systems across the country, having access to a multitude of financing options is beneficial.

CoBank has experience working with the Rural Water and Waste Water Guarantee Loan Program administered by the Rural Utility Service of the United States Department of Agriculture (RUS). In the past year CoBank has received a surge in inquiries from small rural water companies seeking financing, which has lead to an increased interest in the Water and Waste Water Guaranteed Loan Program. This guarantee loan program enables CoBank to extend credit to small rural water companies with loan tenures of up to 30 years. Loans with tenures of up to 30 years greatly assist small water systems that lack the financial wherewithal to use our in-house 20-year loan products. Without the guaranteed loan program, CoBank would not be able to offer 30-year loans to these systems. We are discussing the use of guarantee loans with some prospective customers and hope to close a handful of deals this year.

Conclusion

Thank you for the opportunity to appear before the Subcommittee today. It has been on honor to be here and provide an overview of Project Finance and highlight how CoBank uses innovative financing to meet the challenge of upgrading our nation's water infrastructure. Thank you and I would be happy to respond to any questions you might have.

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
Truth in Testimony Disclosure

Pursuant to clause 2(g)(5) of House Rule XI, in the case of a witness appearing in a nongovernmental capacity, a written statement of proposed testimony shall include: (1) a curriculum vitae; and (2) a disclosure of the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two previous fiscal years by the witness or by an entity represented by the witness. Such statements, with appropriate redaction to protect the privacy of the witness, shall be made publicly available in electronic form not later than one day after the witness appears.

(1) Name: Davit Dornbirer

(2) Other than yourself, name of entity you are representing: CoBank, ACB

(3) Are you testifying on behalf of an entity other than a Government (federal, state, local) entity?

YES — **If yes, please provide the information requested below and attach your curriculum vitae.**

(4) Please list the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two previous fiscal years by you or by the entity you are representing: NONE

Signature

3/16/12
Date

DAVID DORNBIRER

Sector Vice President
Energy and Water Services Division, Rural infrastructure Banking Group
CoBank, ACB

David Dornbirer leads the Water Services lending team in CoBank's Rural Infrastructure Banking Group. He is responsible for a portfolio in excess of $1 billion of loans to more than 80 not-for profit, investor owned, and public-private partnership water, wastewater and solid waste companies across the United States. He has more than 13 years of experience advising and lending to companies in the water and energy sectors.

Mr. Dornbirer joined CoBank in 2004. Prior to joining CoBank, Mr. Dornbirer served as the Director of International Operations for Blackbird Holdings, where he was responsible for budgeting, finance, human resources and legal functions for the provider of derivative trading services. Mr. Dornbirer has also held positions in the international and project finance groups at Bank of America after having served nine years in the U.S. Navy.

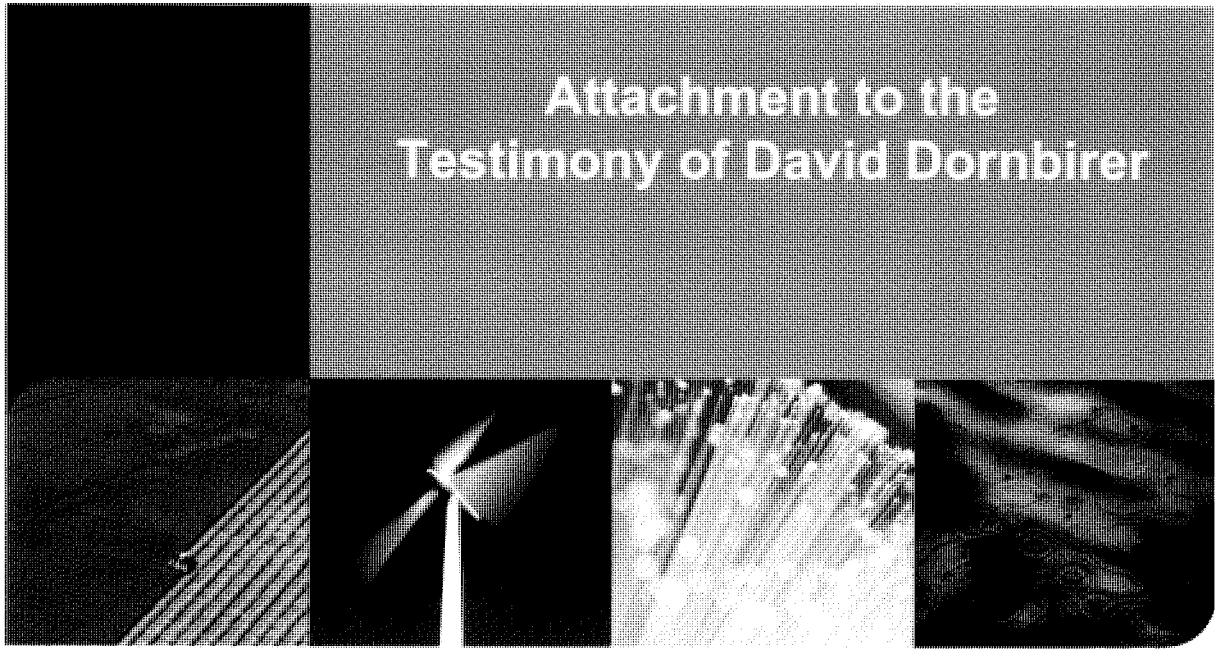
Mr. Dornbirer earned a bachelor's degree in finance from Miami University, and a master's degree in business administration from Thunderbird School of Global Management.

ABOUT COBANK

CoBank is a national cooperative bank serving vital industries across rural America. The bank provides loans, leases, export financing and other financial services to agribusinesses and rural power, water and communications providers in all 50 states.

CoBank is a member of the Farm Credit System, a nationwide network of banks and retail lending associations chartered to support the borrowing needs of U.S. agriculture and the nation's rural economy. In addition to serving its direct retail borrowers, the bank also provides wholesale loans and other financial services to affiliated Farm Credit associations serving more than 70,000 farmers, ranchers and other rural borrowers in 23 states around the country.

Headquartered outside Denver, Colorado, CoBank serves customers from regional banking centers across the U.S. and also maintains an international representative office in Singapore.



CoBANK
COOPERATIVE. CONNECTED. COMMITTED.

Proud Member of the Farm Credit System

Credit Analysis for PPP Project Finance

Major Considerations in Financing PPP Projects

- Regulatory Issues
- DBOF Pricing and Terms
- Construction
- Operational Risk
- Financial Analysis and Structure

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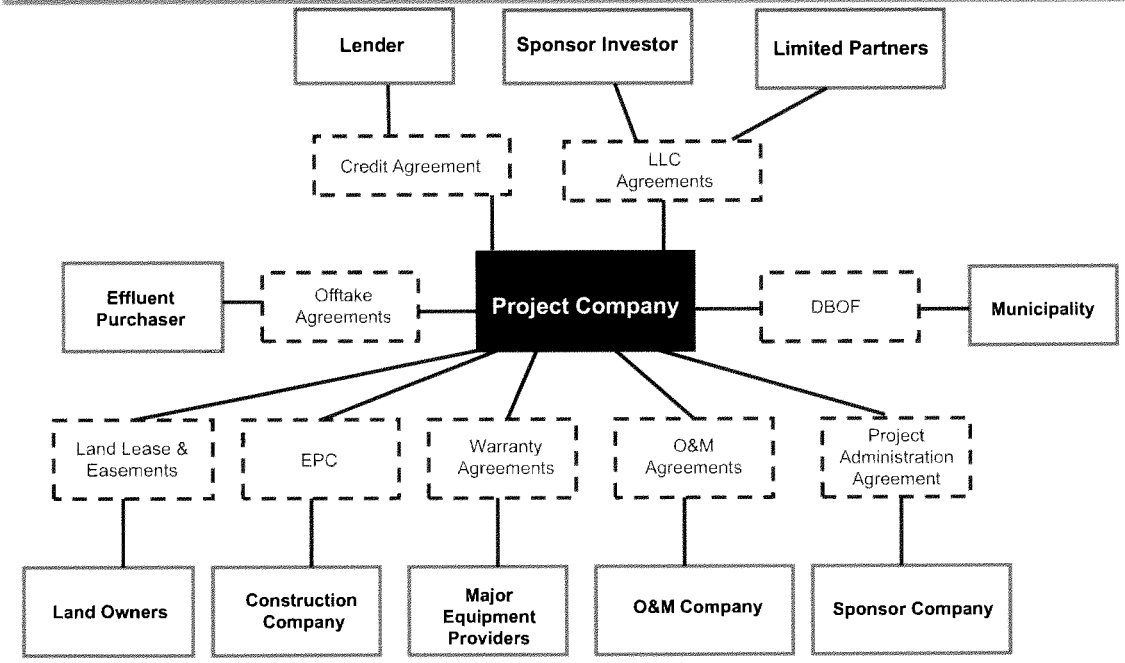
Key Stake Holders and Contract Structure



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DBOF Agreement

DBOF Pricing and Term

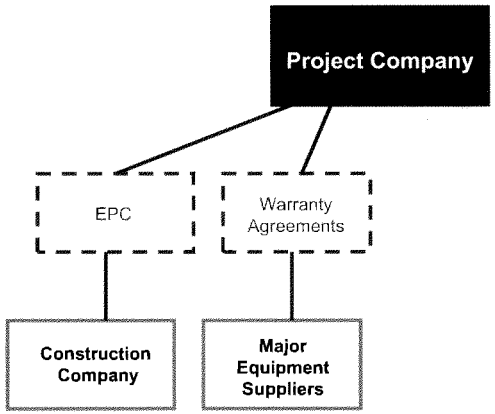
- Risks
  - Credit risk of municipality
  - Rate dispute process
  - Transfer of ownership
  - Maturity of debt versus term of DBOF
- Mitigants
  - Enter into DBOF with creditworthy entity
  - Negotiate fixed price DBOF with CPI increases
  - Effluent sales in revenue will be offset by higher DSC
  - Full amortization of debt prior to end of DBOF
  - Cost pass-through for power, sludge disposal

Regulatory Analysis

- Risks
  - Rate setting
    - PUC involvement
    - Rate protest process
  - Environmental permitting
  - Water rights and availability

- Mitigants
  - Rates clearly set out in DBOF agreement
  - Risk allocation between municipality and project company
  - Contingent equity / Sponsor guarantee

EPC Contract (DBO Agreement)



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Construction

- Risks
  - Bottlenecks in equipment supply
  - Multiple construction and equipment supply contracts
  - Cost overruns
  - Credit risk and experience of EPC
  - Construction delay could trigger consent provisions
- Mitigants
  - Equipment sourced from reputable, credit worthy supplier
  - Fixed Price, turnkey EPC
  - Liquidated damages to cover completion delay and performance shortfalls
  - Engineering consultant to review permits and construction budget and schedule

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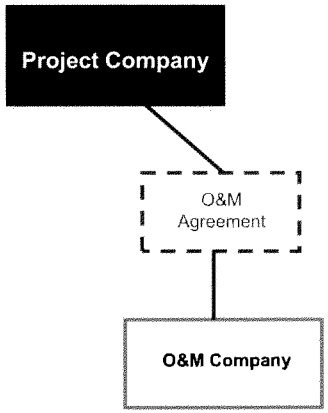
O&M Agreement (DBO Agreement)



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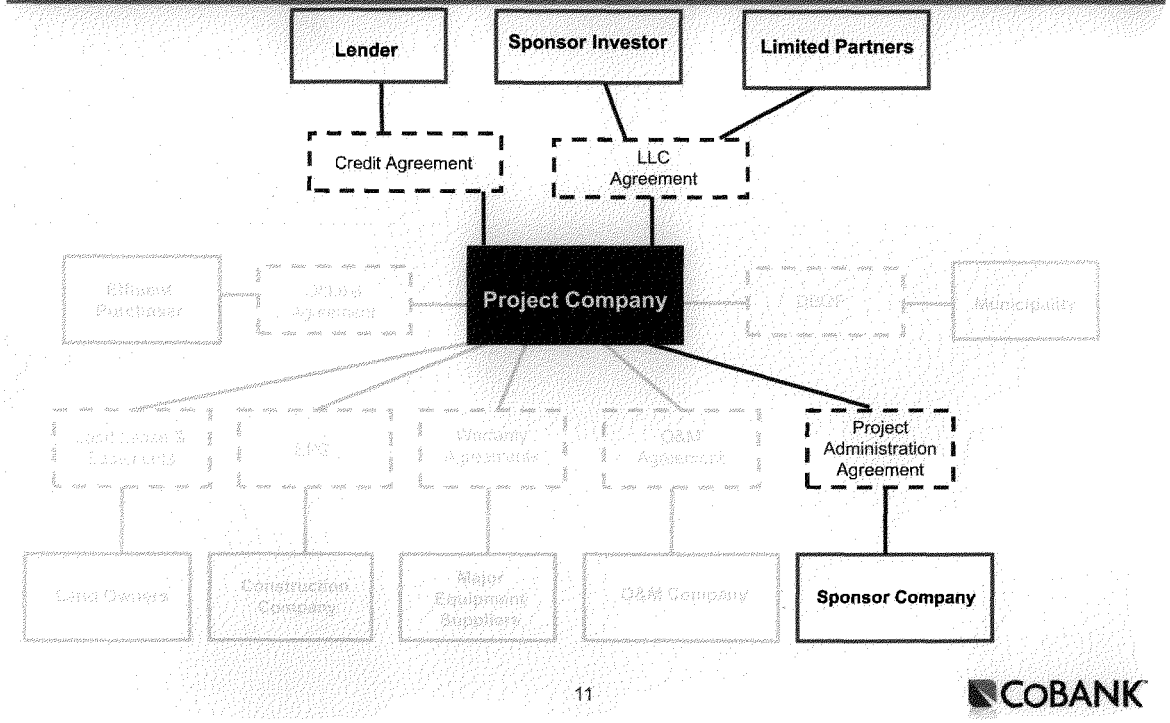
Operational Risk

- Risks
  - Technology
  - Process
- Mitigants
  - Major equipment supplier's track record of performance
  - Operator's experience with similar plants
  - Term of warranty and financial strength of issuer
  - Incentive payments for operator
  - O&M reserve based on forecast expenses
  - Major maintenance reserve for unexpected costs and scheduled overhauls

Credit Agreement



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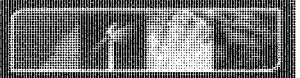
Financial Analysis and Structure



- Risks
  - Budget is inadequate to complete construction
  - Financial model does not capture contract parameters
  - Contracts are unfavorable to sponsor and lenders
- Mitigants
  - Sound DBOF
  - Base case model that captures all variables
  - Debt and equity's interest are aligned and therefore should share assumptions
  - Adequate reserves
  - Experienced project counsel assisting throughout deal
  - Contracts reviewed by lender's counsel, IE, and insurance consultant

TESTIMONY
BENJAMIN H. GRUMBLES
CLEAN WATER AMERICA ALLIANCE
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
HOUSE TRANSPORTATION AND INFRASTRUCTURE COMMITTEE
HEARING ON WATER INFRASTRUCTURE FUNDING
2167 RAYBURN HOUSE OFFICE BUILDING
MARCH 21, 2012

Mr. Chairman, Ranking Member Bishop, and Members of the Subcommittee, thank you for the opportunity to testify on one of the most urgent issues facing America's water future: sustainable funding for infrastructure systems to support our country's most precious liquid asset.

I'm Ben Grumbles, President of Clean Water America Alliance (Alliance), a nonprofit educational 501(c)(3) organization, committed to uniting people and policy for water sustainability. Since its creation in 2008, the Alliance has focused on bringing together the many distinct segments of the nation's water community to increase awareness of the challenge and build support for more integrated, holistic watershed-based strategies. On financing, the Alliance believes we urgently need water innovation and collaboration, not only to sharpen and polish existing tools, but also to forge new tools for communities and ecosystems.

CLEAN WATER AMERICA ALLIANCE

The Alliance is committed to uniting different sectors, and leaders within sectors, to change the way America views, values, and manages water--from quantity to quality, above and below ground. We emphasize the importance and value of each aspect of the water cycle and promote a more integrated, sustainable management of water and watersheds (a concept we call "one water" management). We focus on changing some of the old paradigms, such as only hard and gray infrastructure to a mixture of hard and gray with soft and green, and shifting perception of water from invisible to invaluable.

We have a 35 member Board of Directors that is rich in professional and geographic diversity, experience, and leadership representing public and private water and wastewater organizations and utilities, state water and energy regulators, conservation, environmental, agricultural organizations, and academia.

One of our most important steps was to design and create the U.S. Water Prize, a high-profile annual awards program and ceremony to honor America's leaders in the public, private, and nongovernmental sectors. Recognition programs that promote innovation, integration, and education help all of us in the water community. The support is growing and so is the variety of winners, from large city utilities to interstate source water protection collaborators, to educational nonprofits and businesses.

The Alliance also created an Urban Water Sustainability Council to promote innovation and train future leaders. The Council, which Kevin Shafer of Milwaukee Metropolitan Sewerage District chairs, shapes our policies on urban water, climate, and energy. Our annual leadership conference in October brings together hundreds of sustainability champions and green city advocates. Spotlight cities bring cross-disciplinary, multi-sector teams to discuss their achievements, issues, and opportunities. We've

had two extremely successful conferences, one in Philadelphia and one in Milwaukee. Our third will be in Cincinnati, October 15-17. At each, leaders discuss aspects of urban water sustainability involving green infrastructure, resource recovery, and integrated planning.

The Alliance has also launched a Business Advisory Council, a unique collection of private sector water, environmental engineering and consulting organizations. Steve Maxwell chairs the Council. We've gathered suggestions on ways to spur innovation in technology and regulation, advance public-private partnerships, and underscore, like never before, the value of water through communications strategies and pricing dialogues. We're coordinating with EPA on its Value of Water study to offer perspectives from public and private sector experts.

The Alliance held 3 *National Dialogues*, involving over 150 people, and issued follow-up reports: *Need for an Integrated National Water Policy* (2009), *What's Water Worth?* (2009), and *One Water Management* (2010). As a result of the Dialogues and reports, and a follow-up meeting in January 2010, we issued a National Water Policy Framework, including core principles for Water Sustainability: Valuing, Monitoring, Integrating and Collaborating, and Innovating (finance, technology, and regulation).

Consistent with our framework for water sustainability, over the last two years we have facilitated workshops and issued reports on pressing topics, such as: utility management in an era of climate change adaptation, changing the infrastructure paradigm from "gray to green", and the treatment paradigm from "pipe and discharge" to "recover and reuse" . With support from the Turner Foundation, we issued the 2011 report, "Barriers and Gateways to Green Infrastructure". Based on interviews and questionnaire responses from over 225 governmental, NGO, and private sector experts from around the country, the Alliance report describes in some detail potential technical, legal, fiscal, and cultural/institutional barriers to greening and naturalizing approaches to stormwater and other wet weather flows. In 2011, the Alliance's Urban Water Sustainability Council also teamed up with American Rivers, a leader in the green infrastructure movement, to issue a statement of principles to drive federal green infrastructure policies and strategies.

The Alliance strives to advance a "one water" perspective and a "one water management" strategy. Since its 2010 national report, the Alliance has been promoting integrated watershed management in all of its publications, forums, and actions. This has led to partnerships with the National Association of Clean Water Agencies, Ground Water Protection Council, Alliance for Water Efficiency, Western States Water Council, the American Public Works Association, the National Association of Flood and Stormwater Management Agencies, the Irrigation Association, the National Water Resources Association, and many others. The "One Water Management" Network meeting on February 10, 2012, supported by Water Environment Research Foundation, convened over 60 leaders from federal, state, local and non-governmental organizations to improve understanding and coordination in prioritizing research and implementing integrated water management.

Two examples of our work in "one water management" involving quality and quantity issues are hydraulic fracturing and water softeners. The Alliance has hosted or moderated four national webinars on shale gas drilling and fracturing. Our approach is to lay out fresh facts and critical policy choices so that decision-makers can best understand the energy-water nexus and adopt watershed-based strategies. We've also facilitated discussions among utilities, environmental nonprofit organizations, and EPA on water softeners, salt loadings, and the potential to save water and energy with a new WaterSense certification and label for water efficient devices.

WATER FUNDING AND FINANCE PRINCIPLES

Mr. Chairman, as you and your colleagues debate specific legislative proposals, funding levels, and financing strategies, the Alliance urges you to embrace the following core principles related to valuing, partnering, and greening for sustainability:

1. Valuing Water to Support People and Systems

"Sustainability" must include viable funding strategies to deal with the problem and the price of water lies at the heart of the problem. One of the Alliance's earliest actions was to hold a *National Dialogue* to discuss the urgent but frequently ignored question: "What's Water Worth?" A copy of our 2010 report is available online.

Water pricing is both a science and an art. There's a lot we can do, in our respective roles and capacities, to help communities and agencies develop sustainable ratemaking strategies that move in the direction of "full cost" or "true value" pricing (i.e., rates that more closely reflect the value of service provided), without abandoning the social safety net for those who can't afford to pay. Congress can help agencies and thought leaders to develop the science of ecosystem services and infrastructure life cycle analysis and the art of building public support for reasonable and necessary rate, fee, and tax increases.

2. Partnering Between Public and Private

Policymakers need to continue to probe the barriers and boundaries to public-private partnerships and look for ways to increase collaboration. Legislation, executive orders, and federal agency policies, if done properly, can help promote local choice to increase the range of partnerships for designing, building, operating and financing public water systems. We're also finding private sector technologies, ranging from nutrient recovery to biogas generation, to real-time monitoring and data management systems, continue to provide the solutions public entities depend on. There must be a willingness to consider appropriate private sector involvement, particularly with declining public funds and increasing rates. Otherwise, community systems run the risk of suffering what I like to call "the Public Rust Doctrine"--refusing to explore private-public partnerships to prevent public-purpose systems from rusting and decaying.

Many national and local leaders are looking for the opportunity to infuse public service with private enterprise and tap the financial resources and expertise of the private sector to move public water service forward for our nation's communities. Figures have come out that nearly $180 billion of private capital and infrastructure funds are looking to invest their money in American (or Chinese) infrastructure. We need to consider these opportunities without losing sight of the public's need for trust and accountability when it comes to water.

This Administration and Congress are looking to expand opportunities for public-private partnerships. To this end, most segments of the water industry have rallied around a long-standing proposal to remove the state volume cap on private activity bonds to facilitate private investment and public-private partnerships.

Examples of innovative, private sector financing are growing, and often in response to some of the most pressing issues. NRDC's February 2012 report, "Financing Stormwater Retrofits in Philadelphia and Beyond," includes an excellent description of promising techniques to meeting the stormwater challenge through market-based approaches involving fees , offsite mitigation and credit programs. The NRDC estimates a potential market for third-party investments in stormwater retrofits in Philadelphia on the order of $376 million. To quote from the report: "Given the substantial gaps nationwide between water infrastructure funding needs and available local, state, and federal funds, cities all around the country will increasingly seek to leverage private financing."

Other cities such as Washington, D.C. are also generating funds and using credit systems through parcel-based stormwater fees, and in doing so, are rewarding investments in retrofits. The report also describes a number of project finance mechanisms in the energy efficiency sector (such as Property Assessed Clean Energy--PACE--programs) that could be used to meet the financing needs of property owners seeking to install stormwater retrofits.

3. Greening Infrastructure and Recovering Resources

The Alliance puts a priority on helping communities embrace green infrastructure strategies. I encourage Members to read our 2011 "Barriers and Gateways to Green Infrastructure" report, available online at www.cwaa.us. It reveals that a prime motivator of communities in meshing more green infrastructure with gray infrastructure is to save money and energy. Your hearing focus is on financing, but it bears repeating what you already know: Efficient use of green infrastructure systems can avoid more costly end-of-pipe, concrete, basin-based and tunnel-driven solutions. We know hard and gray infrastructure has been at the heart of much of America's progress in meeting Clean Water Act and Safe Drinking Water Act goals and requirements. We also know the data is coming in that communities can manage stormwater and prevent overflows, improve air quality, reduce the "urban heat island effect," and enhance livability through innovative approaches that integrate more green infrastructure with existing gray infrastructure. Our Urban Water Sustainability Council is documenting case studies and developing common practices to help reduce the demand on infrastructure and improve water quality.

One of the most recent examples of green infrastructure and resource recovery process is in New York City. NYC-DEP, a founding member of the Allliance and winner of our 2011 U.S. Water Prize, has launched a massive effort for greener solutions to controlling overflows. On March 13, 2012, the City announced plans to commit $2.4 billion in public and private money over the next 18 Years. It's an effort that's been playing out in other cities, such as Philadelphia, Los Angeles, Milwaukee, and San Francisco--also winners of our U.S. Water Prize.

4. Connecting Infrastructure, Watersheds, and Sustainability

Consistent with our "one water management" philosophy, the Alliance believes local and regional water and wastewater infrastructure projects should benefit from early and integrated planning efforts before funding and construction decisions are made. Integrated planning and collaborative review can help to reduce the risk that environmentally or fiscally unsustainable projects move forward.

SPECIFIC COMMENTS ON FEDERAL FUNDING TOOLS AND STRATEGIES

The Alliance has not adopted specific positions on pending bills or legislative proposals. We have adopted a set of Green Infrastructure Principles, available on our website, www.cwaa.us, and hope the following general comments and suggestions will be of use to the Subcommittee.

Existing SRFs

We urge Congress to continue supporting the Clean Water Act and Safe Drinking Water Act regulatory and funding programs. We also recognize federal capitalization grants for the highly-successful CWA State Revolving Fund (SRF) and Safe Drinking Water Act State Revolving Fund (SRF) are under increasing pressure from fiscal constraints and competing priorities. While not taking a specific position on current and proposed funding levels, we do believe four important aspects of SRF programs should be embraced as Congress contemplates future revisions and additional funding tools:

1. Flexibility. As Administrations request less capital grant funding and as state programs mature and revolve more fully, it is important to keep looking for ways to broaden project eligibility and administrative flexibility. States can do more with less only if cross-cutting requirements and procedural constraints don't prevent them from doing so in the first place. Land acquisition, an explicitly eligible activity for funding under DS SRF source water protection provisions, holds great potential for CWA SRF and nonpoint source pollution control projects. The Alliance is a strong advocate for green infrastructure and energy and water efficiency funding. We also recognize that set-asides, though not needed permanently, have an important role in catalyzing change toward more sustainable water management practices.

2. Transferability. The 1996 Amendments to the SDWA included a first-ever authority to transfer a percentage of funds between the newly-established SRF and the CW SRF. State managers need this type of transferability authority to continue. This is also an important provision as water reuse projects grow in number and SDWA and CWA policy makers look for models to use in seizing upon municipal wastewater reuse opportunities.

3. Repayment Terms. The CWA SRF loan repayment period should be extended from 20 to up to 30 years, on par with the SDWA SRF repayment period.

4. Equitable Allocation. Congress and EPA should ensure allotment formulas under the CWA and SDWA are fair and based on up-to-date information. As a former state official, I know first-hand the results of allotment formulas that are based on outdated needs and population numbers from the 1970s.

Private Activity Bond legislation

H.R. 1802 and S. 939 amend the Internal Revenue Code to remove the state volume cap on the use of private activity bonds for water and sewer projects. This legislation has the potential to increase access to private sector funding for public water and wastewater projects, while leaving the choice to communities on how to design, build, operate, own, and finance.

"WIFIA" legislation

The American Water Works Association, Water Environment Federation, and others are championing a legislative effort to establish additional mechanisms for capital financing of large projects. The staff draft circulated on March 9, 2012, includes accurate and compelling Congressional

findings. It also states that the new loan/loan guarantee program is not intended to supplant the SRFs, is administered by EPA rather than Treasury, is limited to larger projects of $20 million or more, and can be used for a wide variety of projects, including land acquisition, source water protection, storm water management and control, energy and water efficiency, and alternative source water development such as reuse. The Alliance believes these types of projects are important now and will only grow in importance over time.

We add one extremely important caveat, however, which the Committee understands well given the dynamics of government agencies, budgets, and politics: It's critical to ensure what's intended as a supplemental tool doesn't become the one and only tool or in some way undermine the success of the SRFs. That's a concern many of us have.

The draft also includes H.R. 1802/S. 939, widely-supported bipartisan legislation to increase access to private capital.

H.R. 3145

We appreciate the efforts of Rep. Bishop, Rahall, LaTourette, and Petri to introduce comprehensive legislation, H.R. 3145, the Water Quality Protection and Job Creation Act of 2011, to provide water quality financing through an array of existing and potentially new programs. We believe these efforts are an important part of the broader discussion on how best to proceed.

The Alliance members also know dedicated, sustainable funding is needed for water infrastructure. Our Urban Water Sustainability Council, in particular, understands the math of the gap and the urgency of having a steady stream of reliable and well-managed funding. Sustainability leaders also know it's a problem beyond their local borders, threatening to become a national crisis on the verge of a catastrophe. That's why it's important to continue discussions on whether and how a national trust fund should be established, financed, and operated. My own personal view, based on experiences in Congress, EPA, and State government is that we need a national strategy to increase funding from users and beneficiaries in the private sector, with revenues dedicated to water infrastructure solutions tailored to local and regional conditions. Also, a national effort cannot supplant local governmental and private-sector attempts to finance, maintain, and sustain local infrastructure.

Conclusion

Mr. Chairman and Ranking Member Bishop, the water infrastructure challenge requires all of us to work together to embrace change and foster local strategies that protect public health and the environment and boost the economy. By using "all of the above" tools, and creating some new ones, we can improve the way America views, values, manages, and funds water systems. Clean Water America Alliance supports your efforts and those of others to find common ground and to sustain our water life-support systems above and below ground.

NUCA
REPRESENTING UTILITY & EXCAVATION CONTRACTORS

Written Testimony
by

Ryan Schmitt

President
Petticoat-Schmitt Civil Contractors, Inc.

and

Chairman of the Board
NUCA Representing Utility and Excavation Contractors

before the

House Subcommittee on Water Resources and Environment

addressing

"Review of Innovative Financing Approaches for Community Water Infrastructure Projects -- Part II"

March 21, 2012

Chairman Gibbs, Ranking Member Bishop, and members of the subcommittee. My name is Ryan Schmitt. I am president of Petticoat-Schmitt Civil Contractors, Inc. in Jacksonville Florida, and serve as the current Chairman of the Board at NUCA, representing utility and excavation contractors. I appreciate the opportunity to testify before the subcommittee today on the innovative financing approaches for water infrastructure projects in American communities. NUCA believes there are many creative alternatives to be considered, and we thank the subcommittee for holding this hearing, the second one on the subject this important subject this year.

NUCA is the oldest and largest national trade association working solely for the utility construction and excavation industry, consisting of a nationwide network of chapters and member companies that provide the workforce and materials to advance the water, sewer, gas, electric, telecommunications and construction site development industries across the country. NUCA also serves as chair of the Clean Water Council (CWC), a coalition of some 40 national organizations representing underground construction contractors, design professionals, manufacturers and suppliers, labor representatives and others committed to ensuring a high quality of life through sound environmental infrastructure. These industries work collectively to improve critical underground systems that unquestionably enhance America's quality of life.

NUCA commends the past efforts of this subcommittee to advance legislation to increase investment in wastewater infrastructure, and we look forward to working with you more on a range of legislative initiatives to open the door to more investment opportunities from both public and private sources. NUCA believes long-term and reliable sources of revenue are needed to meet the skyrocketing needs facing our water and wastewater infrastructure and we are eager to participate in the discussion as the issues and challenges are vetted, debated and resolved.

SIGNIFICANT FUNDING NEEDED TO TACKLE RISING NEEDS

America's water infrastructure needs are nothing short of staggering, and the need to invest in it is well known and clearly documented. According to the U.S. Environmental Protection Agency (EPA), hundreds of billions of dollars are needed to repair and rebuild America's dilapidated underground environmental infrastructure, yet the reduction of available public dollars has obstructed significant progress to address these needs. Members of our industry see the results of failing water and sewer systems literally from the trenches in their everyday work, and the scene isn't pretty.

Additionally, the American Society of Civil Engineers (ASCE), an active member of the CWC, evaluates the nation's infrastructure and reports on the status of it every few years. America's wastewater infrastructure is continually graded at a "D minus" in the ASCE's *Report Card for America's Infrastructure*. There is a clear consensus among both government and industry professionals that the state of this infrastructure is quickly going from bad to worse.

ECONOMIC FACTORS HELP DEMONSTRATE THE NEED FOR NEW REVENUES

The water infrastructure market and companies working in it are also in serious trouble. In addition to the cuts in federal funding to refurbish these systems over the past several years, state budgets have been hit hard because of ongoing problems in the housing market, which in turn has lowered revenues from property taxes. The lack of public dollars has kept the construction industry on the sidelines. In fact, construction has been the hardest hit industry sector since the beginning of the economic downturn and continues face unacceptably high unemployment. Construction firms that work on public water and wastewater infrastructure projects likely face significantly higher unemployment than general construction. This is certainly true in my State of Florida.

To make matters worse, the rising cost of construction materials and labor has reduced the purchasing power of public works dollars. Fewer contracts are going out to bid, which only increases the number of bids competing for limited projects. The inevitable result is less work on this deteriorating infrastructure and fewer jobs for those who do this critical work.

NUCA believes that passage of several water infrastructure bills is needed to take important first steps to help get the construction industry back on its feet and contribute to the slow recovery of America's economy. Although underground water and wastewater projects are generally recognized for their effectiveness in enhancing public health and environmental protection, the *economic* benefits that result from this work are often overlooked. Those benefits are real and demonstrated in a 2009 report by the Clean Water Council.

The CWC study, *Sudden Impact: Assessment of Short-Term Economic Impacts of Water and Wastewater Projects in the United States* supports the argument that water infrastructure investment creates significant and immediate economic benefits in terms of job creation, increased demand for goods and services, rise in personal income and generation of state and local tax revenue. The study only addresses economic impacts during or immediately after the project. Future work on these facilities brings economic enhancements, including additional job creation when maintenance and repair activities are conducted.

The findings of the study are based on data collected from 116 water and wastewater construction projects in five demographically diverse states and 73 counties. The projects encompass a broad range of project types, sizes, materials, construction methods and labor markets. Specifically, the study shows that a $1 billion investment in water and wastewater infrastructure results in the creation of up to some 27,000 new jobs with average annual earnings of more than $50,000, increases in demand for products and services in other industries of between $2.87 and $3.46 billion, and generation of personal or household income of more that $1 billion. Importantly, each $1 billion invested also generates approximately $82.4 million in state and local tax revenue.

The study underscores the "ripple effect," or how this investment impacts industry sectors outside of construction. Each $1 billion invested in water and sewer projects generates measurable employment in 325 other standard industry classifications. In fact, a $1 billion investment results in the hiring of at least 100 workers in 25 industry segments outside of construction, including retail markets, wholesale trade, real estate, insurance carriers, health care, food services, and accounting, just to name a few.

Copies of *Sudden Impact* were sent to all members of the U.S. House and Senate after its release, and additional copies are available on request.

INNOVATIVE FINANCING OF WATER INFRASTRUCTURE PROJECTS

Private Activity Bonds Funding Water Infrastructure

NUCA has supported a wide range of legislative solutions to address America's environmental infrastructure challenges since its establishment in 1964. However, because of the reduced federal dollars available for water infrastructure improvements over the past several years, the association has recently focused on increasing opportunities for private investment and public-private partnerships (P3s). The Sustainable Water Infrastructure Investment Act (HR 1802 and S 939) would address both of these goals by lifting water and wastewater infrastructure projects from the state volume cap on private activity bonds (PABs), thereby encouraging use of more P3s in the market.

PABs are a form of tax exempt financing for state and municipal governments looking to partner with a private entity to "meet a public need," such as construction of a wastewater treatment plant. Use of public-private partnerships makes infrastructure repair and construction more affordable for

municipalities. PABs use private capital in lieu of public debt and shift the risk and long-term debt from the municipality to the private partner. The tax-exempt status of the bond provides lower cost financing for investors, which translates to lower costs for local governments and ultimately their customers.

Unfortunately, federal tax law restricts PABs from reaching their maximum benefit by limiting the amount of PABs that may be issued annually in a state. This "volume cap" is based on the state population – last year the cap was determined by the greater of $95 per resident or $277.82 million. Because water and wastewater projects are "out of sight, out of mind," tax-exempt funding is commonly directed toward more politically attractive projects such as public housing and student loans. As a result, in 2007 only 1.3 percent of all exempt facility bonds were issued to water and wastewater projects.

By lifting the cap on PABs that fund water and wastewater infrastructure projects, it is estimated that up to $5 billion could be generated in annual private investment at very low cost to the federal government. In fact, the last "score" by the Joint Committee on Taxation found that this provision would cost $354 million over the next 10 years. The fact that this "cost" is solely a mild loss of federal tax revenue is significant – the measure doesn't require the government to "spend" a federal dime.

Legislation to remove water and wastewater infrastructure from under the state volume cap on PABs has broad support both on and off Capitol Hill. In fact, it is cosponsored by Democrats on the far left as well as strict conservatives on the right. Dozens of business groups also support the legislation, from the Clean Water Council to the U.S. Chamber of Commerce to Operating Engineers and Laborers' unions.

At a time when all levels of government are scrambling to make ends meet, and policymakers of all stripes are clamoring for more private-sector solutions to job creation, increased use of PABs and other opportunities for public-private partnerships for water infrastructure improvements are needed now more than ever.

State Revolving Fund Reauthorization
The 1987 amendments to the Clean Water Act (CWA) fundamentally changed the way the federal government provides financial assistance for water pollution control facilities by replacing the construction grants program with the Clean Water State Revolving Fund (SRF) program. Controlled and operated by the states, the SRF program provides loans and other financial assistance for water pollution control projects.

In general, SRF loans provide necessary resources for public projects that promote public health, protect the environment, create scores of high-paying American jobs, expand the local tax base and enhance our overall quality of life. The revolving nature of the program has made it a successful federal financing program, and has been the primary reason for its continued funding through annual appropriations, despite the fact that SRF authorization expired in 1994. Nationally, interest rates for SRF loans average at approximately 2.5 percent compared with substantially higher market rates, and provide flexible repayment terms.

Revolving funds work in perpetuity to provide a fiscally sound approach to infrastructure financing. The Clean Water SRF, for example, has leveraged tens of billions of dollars in federal grants into significantly more resources through revolving loans to local communities.

NUCA appreciates the introduction of the Water Quality Protection and Job Creation Act of 2011 (H.R. 3145). The bill, authored by Congressman Bishop, would authorize $13.8 billion over the next five years for EPA's Clean Water State Revolving Fund (SRF) would help provide initial investment increases

needed to put the underground infrastructure industry back to work. The technical assistance to rural, small and tribal communities would help educate local governments seeking financial support to improve their wastewater infrastructure and reduce costs. And providing $2.5 billion for combined sewer overflow (CSO) is a wise federal investment.

While we fully support opportunities for more private investment, NUCA believes a strong federal commitment to the SRF continues to be needed. Reauthorization of the program would be a big step in the right direction.

Development of "WIFIA"
Following the model of the successful Transportation Infrastructure Finance and Innovation Act (TIFIA), legislation pending in this subcommittee will offer credit assistance through the use of loans and loan guarantees to complement traditional financing programs for water and wastewater infrastructure improvements. These "WIFIA" resources would offer states and localities assistance to fund significant water infrastructure projects with very little impact on the federal budget. If structured effectively and in compliance with current law requiring the federal government to establish a capital reserve to cover anticipated credit losses, a WIFIA authority could use existing funding mechanisms such as the SRF to maximize its potential.

National Infrastructure Bank
Establishing a National Infrastructure Bank to finance a variety of infrastructure projects, including wastewater infrastructure projects should also be considered. Such a bank would independently evaluate projects and determine the most effective means (loans, grants, etc.) to finance them. Amounts and types of government oversight, structure of the Bank, revenue sources and opportunities for private-sector participation are all issues that must be addressed while considering establishment of such an entity.

Clean Water Trust Fund
There is a growing national conversation about the establishment of a dedicated source of revenue through a new "Clean Water Trust Fund." While NUCA supports the concept, there are several concerns to be addressed. Issues related to determining how to administer a clean water trust fund, what activities should be eligible to receive support from trust fund revenues, and of course, the most effective and equitable way to pay for it, will all have to be addressed.

CONCLUSION
There are several legislative proposals that if crafted effectively could put the underground utility and excavation industry back to work, create scores of jobs in hundreds of American industries, expand local tax bases at a time when local officials badly need new revenues, and begin to repair and rebuild the nation's crumbling underground environmental infrastructure. NUCA believes removing the state volume cap on PABs, reauthorizing the SRF program, and establishing new options for loans and loan guarantees through WIFIA should be front and center on the congressional agenda.

I thank you for the opportunity to testify before the subcommittee today, and I look forward to answering any questions you might have.

U.S. House of Representatives Committee on Transportation and Infrastructure
Subcommittee on Water Resources and Environment

Review of Innovative Financing Approaches for Community Water Infrastructure Projects: Part II

March 21, 2012

Written Testimony of Lynn Broaddus
Director, Environment Program
The Johnson Foundation at Wingspread

Introduction

Good morning Chairman Gibbs, Ranking Member Bishop and distinguished members of the Water Resources and Environment Subcommittee. Thank you for inviting me to testify today.

My name is Lynn Broaddus, and I direct the Environment Program at The Johnson Foundation at Wingspread in Racine, Wisconsin. The Johnson Foundation's mission is to be a catalyst for positive and lasting change through leading-edge convening to create healthier environments and communities.

The Johnson Foundation is non-partisan and brings no preconceived ideas or fixed agendas to this or any issue on which we focus. We aim to have candid and authentic dialogue in an environment that fosters the trust and collaboration needed to identify innovative yet broadly supported solutions that have impact.

FSWI Report Background

I am here today to testify about a report released recently by The Johnson Foundation titled, appropriately enough, *Financing Sustainable Water Infrastructure*. This report lays out a roadmap for innovative ways to finance our nation's water infrastructure for the 21st century and beyond.

The report's recommendations were created from deliberations among a unique group of experts. In fact, these experts are similar to those the subcommittee has invited to this two-part hearing: public and private water utility managers, investment managers, municipal bond raters and underwriters, non-governmental organizations, foundations and other stakeholders.

These meetings were convened as part of The Johnson Foundation's ongoing initiative on U.S. freshwater issues known as Charting New Waters - a broad, collaborative effort dedicated to catalyzing new solutions to freshwater challenges we are facing in the United States. Charting New Waters represents more than three years of high-level engagement on freshwater issues. The initial phase of work led to the release of *Charting New Waters: A Call to Action to Address U.S. Freshwater Challenges*, a consensus report issued in September of 2010.

The latest report, *Financing Sustainable Water Infrastructure*, is a direct outcome of the Charting New Waters work. The Johnson Foundation, in collaboration with American Rivers and Ceres, convened a group of experts at Wingspread to discuss ways to drive funding toward the infrastructure we need for the 21st century. The *Financing Sustainable Water Infrastructure* report is a result of those meetings.

FSWI Report Findings

The report examines the operational, institutional, and market-related challenges that our water and wastewater utilities need to overcome if they are going to continue to support our people and industries into the next century.

I would also note in the report "sustainability" means multiple things. It means that the infrastructure itself includes sustainable elements such as natural infrastructure that can be used to provide low-cost protection of water supply and flood abatement. It also includes consideration of sustainable pricing and financing mechanisms and how to make sure that those mechanisms are structured in a way that actually incentivizes and supports water infrastructure decisions that will be appropriate for the next 50 to 100 years.

I would like to highlight some of the report's recommendations that are relevant to this hearing and your work on innovative water infrastructure financing legislation.

- The water utility business model is changing. Historically, water and wastewater utilities have functioned as monopolies without competition. Now technological advances are allowing more options for water efficiency, water re-use, and water harvest. For example, Forbes recently did an article about how Google is using recycled gray water to cool its vast network of data centers – eliminating the demand for millions of gallons of treated drinking water. This is but one example of the sort of disruptive shift in traditional business models that needs to be factored into current thinking and planning.

  As the price of water services rises, the cost of new technology drops, and concern for securing a water supply increases, we are likely to see a rise in use of these "disruptive" technologies, which can undermine the monopolistic nature of the water utility.

This can be a very good thing for society as a whole, but it means that the financial tools and risk models that have served the industry for the past fifty years need to be re-examined.

- With this we are likely to see more consolidation of systems and a move toward "one water" management, where wastewater, water supply, stormwater, and flood management are managed as one system rather than siloed into disciplines working at cross-purposes to each other.

- These changes and our shifting water demands drive the need to consider a number of innovative financing strategies including expanding the pool of water service funding, accounting and paying for ecosystem services and implementing distributed water services.

  Expanding Pool of Water Service Funding:
  We need to recognize that water systems are more than pipes and treatment plants and that roads, green spaces, and buildings are all critical to effective water management. This more comprehensive definition of water systems expands the funding pool. Other ways to expand the funding pool include partnering with heavy-use industrial partners and recovering valuable nutrients and energy embedded in the water and wastewater.

  Accounting and Paying for Ecosystem Services:
  We need an accurate valuation of ecosystems that can provide clean drinking water at a fraction of the cost of built infrastructure. These services are often not reflected on utilities' balance sheets, which could help expand debt capacity for other capital improvements. Linking payment for watershed services upstream can cost magnitudes less than treatment plants and new supply development.

Implementing Distributed Water Services:

It is often cheaper—and potentially profitable for private investment—to capture and manage water where it falls through low-impact development including on-site treated wastewater for use in toilets and irrigation, living roofs, and rain gardens.

WIFIA and H.R. 3145

Many of these recommendations are encapsulated in the bills put forward by both Chairman Gibbs, the discussion draft known as Water Infrastructure Finance and Innovation Act or WIFIA, and Ranking Member Bishop's H.R. 3145, the Water Quality Protection and Job Creation Act of 2011.

While The Johnson Foundation cannot offer any specific perspectives about this legislation, I can tell you generally about how these proposals fit into our report's recommendations.

WIFIA:

The WIFIA proposal covers many of the necessary recommendations discussed during our financing water infrastructure meetings and contained in the *Financing Sustainable Water Infrastructure* report. However, the report also emphasizes the importance of flexibility, recognition of new technology and the changing conditions in the water business in order to maximize the impact and effectiveness of new proposed financing mechanisms.

The water industry is on the verge of significant change even as we face our nation's growing freshwater challenges. In order to handle these uncertain but fast-paced changes, we need to have the ability to finance smaller, more incremental projects,

especially for smaller communities. This is perhaps even more important than finding financing for larger projects. If financing mechanisms are available only for "mega-projects," then that is what we will get when a smaller solution might be a more cost-efficient answer.

Similarly we need to expand "prioritization" criteria and include more scenario planning as cities and communities have to consider a growing number of diverse factors depending on location including water supply security, energy impact, vulnerability to disruptive technologies, changing utility business structures, and changing weather patterns.

Finally, I will just note that this country is built on innovation, a successful balance of private and public funding and the private sector's ability to find solutions. The same is true in the water business and participants contributing to the report noted it might prove counterproductive to assume that the way we do business will continue to hold the same risks and opportunities that they once did. We need to ensure that changing weather patterns, long-term projections of aquifer drawdown, and uncertainties about future energy costs are taken into consideration as projects are evaluated.

H.R. 3145:

I will just briefly touch on Ranking Member Bishop's Federal Water Pollution Control Act, H.R. 3145.

First I think the two bills, while certainly different, do share a lot of common and important ground. H.R. 3145 also hits on a lot of the important themes from our report.

H.R. 3145 does recognize the inherent benefits of smaller projects. Certainly developing smaller projects that are more tightly focused can avoid some of the

problems we are currently seeing where communities can no longer afford to maintain larger projects because of population shifts, reductions in per capita water use, and other factors.

In addition, the legislation addresses new technologies and alternative infrastructure, as does the WIFIA legislation, which is a necessary and positive element to water systems planning.

Regarding the grant programs, our report found that long-term sustainable funding mechanisms produce the best possibility that projects will be sustained at the local level with local resources. The experts we convened expressed the strong sentiment that full-cost pricing is the most compatible with long-term, sustainable water management. Grant funding of water infrastructure can be at cross-purposes with this goal by hiding the true cost of water and wastewater services.

The Big Picture

While all of these efforts on innovative financing are necessary and important, I encourage this Subcommittee, my fellow panelists and stakeholders to include in your discussions an emphasis on the nature of the systems we want to fund, in addition to our consideration of how we finance these systems.

We can bring about a more cost efficient and effective system for the long term if we tackle not only how to maintain the existing system but how to improve it so that we can more effectively meet the needs of our shifting population and water resources relative to the environmental, social, and demographic changes we are expecting.

In Summary

So to summarize my main points I would say as we look for new ways to finance the necessary water infrastructure for this country:

- Remember that water infrastructure includes more than pipes and water treatment plants, as several witnesses and subcommittee members have referred to, and can be leveraged in helpful and cost cutting ways;

- The nature of the water industry is changing and great opportunities lie in private and public partnerships, especially in financing;

- While it is absolutely necessary to find new ways of financing our infrastructure, we must also ask ourselves *what* infrastructure best meets our needs and how that might be different from the infrastructure we already have; and,

- We need to be cautious about new water funding mechanisms that emphasize large projects that reduce a community's ability to respond to change.

I'd also like to ask unanimous consent to enter the *Charting New Waters* report and the *Financing Sustainable Water Infrastructure* report into the record.

Thank you for your attention to these issues and I would be happy to take any questions.

AFSCME
We Make America Happen

Testimony of

Richard Abelson, Executive Director of District Council 48

American Federation of State, County and Municipal Employees (AFSCME)

for the hearing

"A Review of Innovative Financing Approaches for Community Water Infrastructure Projects"

before the

Subcommittee on Water Resources and Environment
Committee on Transportation and Infrastructure

U.S. House of Representatives

March 21, 2012

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Chairman Gibbs, Ranking Member Bishop and members of the Subcommittee, my name is Richard Abelson. I am the Executive Director of the American Federation of State, County and Municipal Employees' (AFSCME) Council 48 in Wisconsin. It is an honor to be here today to share with you AFSCME's experience with the privatization of water and wastewater systems, particularly in Wisconsin.

AFSCME's 1.6 million members are primarily public employees who work in areas such as health care, education, social services, transportation, law enforcement and water and wastewater treatment across the country. We have a broad range of experience and knowledge of the impact that the privatization of public services has had on communities and the public at large. AFSCME currently represents thousands of individuals who work for water and wastewater systems. Every day these workers perform vital work in protecting our nation's water supply and the environment.

Based on my work in the State of Wisconsin, I would like to give you my personal views on this issue. Faced with rising financial problems, the comptroller of the City of Milwaukee in 2008 proposed a long-term lease of the City's water works. The comptroller proposed a lease of 75 to 99 years, something that was unheard of in a city the size of Milwaukee. Leases I am familiar with in other large communities have been for up to 20 years. This proposal initiated a period of intense debate that lasted for about a year. A major coalition of community groups and individual citizens came together to examine the impact this proposal would have on the residents of Milwaukee. One of the things looked at was the impact water privatization has had on the residents of other cities in Wisconsin. We found several negative consequences for the residents of other Wisconsin cities that we desperately wanted to avoid. We discovered that customers of privatized water systems in Wisconsin pay as much as $150 more a month for service than those who receive their water from a publicly-run system. We also discovered that customers in Wisconsin whose drinking water systems are privatized encounter more water quality issues and poor service problems. In the end, the plan to turn over our City's drinking water system to a private company for such a long period of time in return for an upfront payment was abandoned. Our community decided not to trust the claims of a private entity that it had the best solution to our budgetary woes. Nor were we willing to take the risk of subjecting our citizens to rate increases, water quality concerns and service problems that cities with privately-run water systems have endured.

During this process, we discovered some basic facts about privatization of drinking water. These are a few the facts that were shared with the public during the debate back in 2008, which ultimately helped us win the battle against privatization:

1. All major water companies that were bidding for the Milwaukee Water Works contract were foreign-owned companies;

2. Rates are higher for consumers when private water companies are involved. A public utility is providing water to their customers as a service while a privately-owned and operated entity is looking to make a profit for their executives and shareholders;

3. Excessive bureaucracy and low staffing levels in private water facilities result in poor customer service;

4. Private companies taking over public water systems often make significant staffing cuts that may ultimately jeopardize the level of water quality. Employee benefits are routinely slashed, making it more difficult to maintain a high quality workforce.

AFSCME has worked closely with other organizations that have studied the impact of privatization of drinking and waste water on communities across the country. There are recurring themes in most instances of water privatization. I would like to submit for the record an extensive report that was done by Food and Water Watch entitled, "Mortgaging Milwaukee's Future, Why Leasing the Water System is a Bad Deal for Consumers." In this extensive report, Food and Water Watch took a close look at the Milwaukee water utility's financial statements and proved how a long-term lease would actually cost the City millions of dollars a year; and customers would see a huge jump in their bills, suggesting that a lease of the water utility was not in the best economic interest of the City or its residents. The report concluded that the City would undoubtedly experience higher rates and poor service, leaving citizens with little recourse, unable to vote private managers or state-appointed regulators out of office. The report is attached to my written statement.

Unfortunately, unlike our water works, our wastewater system has been privatized, and it has been less than successful to say the least. Our environmental concerns have become a reality. Several million gallons of untreated sewage have been discharged into streams and into Lake Michigan, and Wisconsin's Attorney General in 2004 blamed the private operator for inadequate maintenance. At that time, more than a billion gallons of sewage had seeped into local waters. The company – United Water – was audited, and it was found to have saved itself $515,000 by shutting down pumps during peak electricity hours. This action triggered a series of dangerous overflows.

In addition, residents have endured unnecessary increases in their sewer user fees since the Milwaukee Metropolitan Sewerage District system was privatized. The district was privatized in 1998, and the deal actually included an annual increase to residents that was paid directly to the United Water Services.

We believe that the private sector does have a role to play in this area, but it is not in operating or managing public drinking and wastewater facilities. That should be the responsibility of local governments. The private sector can use its vast resources to find innovative solutions to the water crisis and create innovative technologies for more efficient treatment plants. We have to ask ourselves, "Is water a basic public resource or a product that is sold for profit?"

We understand and appreciate that there is a tremendous need to maintain and improve our public infrastructure. And that leads to the temptation to grab onto schemes that promise to take responsibility out of public hands in return for large upfront payments.

What we found in Milwaukee is not unique. Private investors, or public-private partnerships, whether in water and wastewater, highways or other capital assets, typically demand a high rate of return, and such provisions as lengthy contract terms, anti-compete clauses or guaranteed payments are not in the public interest. We believe that infrastructure is more appropriately financed through vehicles akin to fixed income instruments than to private equity, with long-term stable returns.

Given that interest rates are at historic lows, and many public entities have latitude to issue debt, bond financing is the best way to achieve this goal. Renewal of the Build America Bonds (BABs) program could save the federal government money, help put America back to work and revitalize the infrastructure that is critical to U.S. economic competitiveness. By providing access to tax-exempt investors such as pension funds, sovereign wealth funds and life insurance companies, BABs bring new sources of capital to state and local governments. New capital will permit states to finance construction of needed projects and avoid privatizing existing public sector assets. The broader field of potential investors provides greater demand, enhances market stability and improves investor confidence.

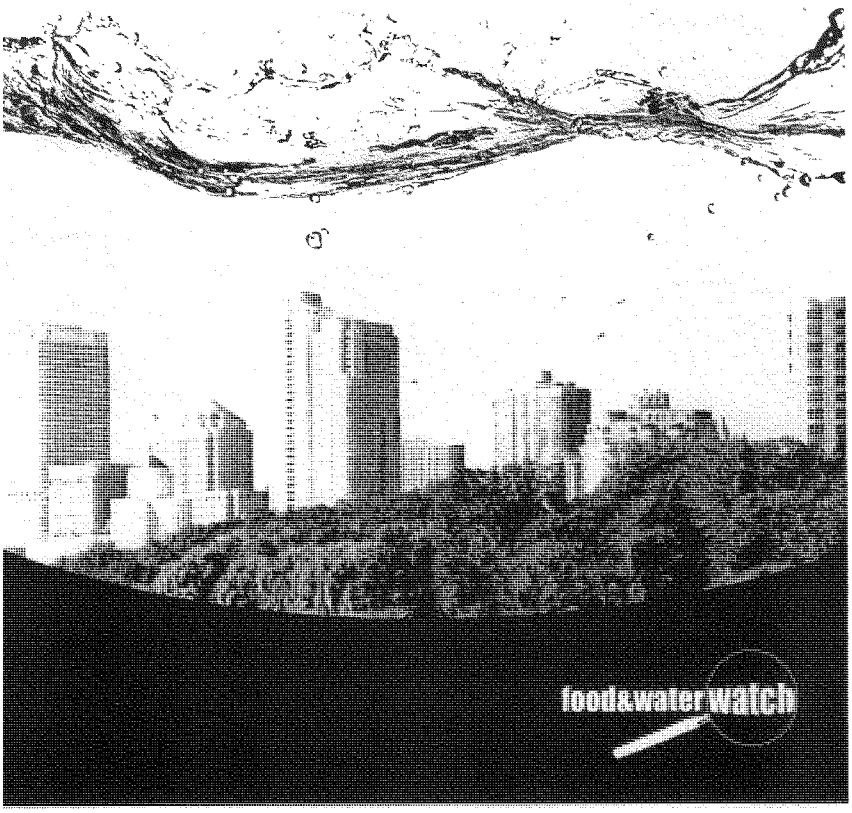
We should work together beyond considering these options. AFSCME and other labor unions are collaborating to explore financing structures in which a public pension fund or group of public pension funds hold majority control of an infrastructure asset, providing stable returns to the retirement system as well as providing an influx of badly-needed investment in public infrastructure.

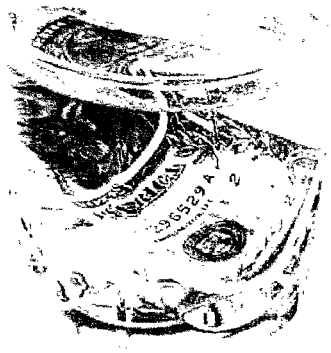
I appreciate the opportunity to appear before the Subcommittee today. I would be pleased to answer any questions you may have.

ATTACHMENT

Mortgaging Milwaukee's Future

Why Leasing the Water System Is a Bad Deal for Consumers





About Food & Water Watch

Food & Water Watch is a non-profit organization working with grassroots organizations around the world to create an economically and environmentally viable future. Through research, public and policymaker education, media and lobbying, we advocate policies that guarantee safe, wholesome food produced in a humane and sustainable manner and public, rather than private, control of water resources including oceans, rivers and groundwater. For more information, visit www.foodandwaterwatch.org.

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Mortgaging Milwaukee's Future

Why Leasing the Water System Is a Bad Deal for Consumers

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Executive Summary

The City of Milwaukee faces a serious fiscal predicament. Its budget deficit could top $100 million by 2010, and laws restrict its ability to raise taxes to help offset the shortfall. In 2008, with this conundrum in mind, a public official proposed leasing the Milwaukee Water Works to generate a new revenue source. The city needs an alternative to service cuts and fee hikes, but water privatization is an inadequate and possibly expensive option.

In a lease, city officials expected that a private entity would pay the city half a billion dollars for the right to run the entire water utility for nearly a century. A water privatization of this size and scope is unprecedented in the United States, perhaps because it is risky and potentially costly.

Although Milwaukee's main objective would be to obtain a large concession fee through the lease, the idea that this fee is low-cost or free money is based on a misconception. Any upfront payment that the city would receive is an expensive loan, which the community must repay through their water bills.

In this report, Food & Water Watch used industry trends and the utility's financial statements to analyze the costs associated with a long-term lease of the Milwaukee Water Works. The research found that despite revenue from investing a large concession fee, a lease could cost the Milwaukee community a net of at least $17 million a year. For every dollar that the city receives from an endowment, water users, as a whole, could have to pay $1.60 to $5.20.

These findings suggest that a water utility lease is not in the economic interest of the Milwaukee community. The city needs a reliable and responsible revenue source to sustain services, and water privatization is not a sound fiscal solution. It is an uncertain and cumbersome plan that could exacerbate, not ameliorate, the community's financial difficulties.

Moreover, a lease effectively is an abdication of the city's responsibility to provide its residents with safe and affordable water service. If the city pursues this option, there is ample evidence that the community could suffer from high rates and poor service. In addition, a long-term lease would leave generations of Milwaukee residents with little recourse in the event of unresponsive water service. Water users cannot vote private managers or state-appointed regulators out of office.

Water privatization involves too many risks and hidden expenses, and would fail to resolve the city's fiscal problems. Milwaukee needs a better solution — one that does not jeopardize its valuable water service.

Key Findings

Cost implications for the community

- A lease of the Milwaukee Water Works could cost the Milwaukee community a total of **$17 million to $31 million a year**.
    - By investing a concession fee into an endowment, the city could net between $7 million and $28 million a year for its general fund.
    - At the same time, because of the higher cost of private capital, a lease could increase the water utility's revenue requirement by $38 million to $45 million a year – 55 percent to 65 percent – resulting in higher water bills for the consumers.
- For every dollar that the city receives from an endowment, water users, as a whole, could have to pay approximately $1.60 to $5.40.

High water bills

- In Wisconsin, private water service costs **59 percent** more than public water service.
- Long-term leases with large concession fees can result in significant increases in water rates, according the U.S. Environmental Protection Agency.

Loss of local control

- Because water utilities are natural monopolies, a long-term lease would reduce consumer choice.
- The leasing company may construct water main extensions that encourage sprawl.
- Although state regulators would oversee elements of the utility's operation, according to the Association of California Water Agencies, regulation "provides a poor substitute for marketplace discipline or ballot box accountability."
- Studies have found that competition for water system contracts is rare, and long-term contracts that require private capital further reduces the list of viable competitors.

Service concerns

- Poor performance by private operators is the number one reason why cities decide to bring previously contracted-out services in house.
- Private operators can have a financial incentive to neglect system maintenance and upkeep.

"Here in Wisconsin, the water belongs to everyone. Our waters are held in trust for all of us to enjoy. As citizens of Wisconsin, we have a collective responsibility to protect our water resources."

– Wisconsin Department of Natural Resources, "The Waters of Wisconsin: A Progress Report July 1, 2006 - December 31, 2007"

Residents in Milwaukee protest the privatization of their water system at a city council meeting, June 2009. Photo by Jon Keesecker/Food & Water Watch.

Introduction

Milwaukee's fiscal crisis is serious. City officials predicted that its long-term structural budget deficit would exceed $100 million by 2010. The value of its share of state aid, its largest single revenue source, had been shrinking for the past decade, and laws restrict tax increases. With its revenue raising ability limited, and with pension and other costs growing, the city considered cutting services and increasing user fees.

In October 2008, with these constraints and the looming budget gap in mind, Milwaukee Comptroller W. Martin (Wally) Morics wrote to the common council and recommended an alternative course of action: Leasing the Milwaukee Water Works.[1]

Typically, in a lease, a private entity pays a city a sizable concession fee for the right to control a municipal water system for decades. These concession fees resemble expensive loans. In a 1997 report, the U.S. Environmental Protection Agency called them "comparable to the 'home-equity' loans popular with home owners across the country."[2]

After a lessee pays a large fee, it is basic business for it to want to recover that amount plus profit. It would have to generate additional revenue by cutting services or raising water rates, perhaps worsening the financial hardship of cash-strapped households and local businesses. While eviction for overdue water bills may seem extreme, for residents in several cities, it is a very real threat.[3]

Overall, lease-concessions of water utilities are rare in the United States,[4] but in the aftermath of the housing market collapse, a few local governments, primarily in the long-suffering Rust Belt, considered privatizing their utilities. In 2008 Akron residents voted against their mayor's initiative to lease their sewers, and in 2009 Chicago and Indianapolis reportedly were pursuing lease arrangements for their water systems.[5]

Milwaukee's proposal, in particular, is remarkable. It was for a lease of a size and scope unprecedented in the United

States: A privatization of a large city's entire water system for nearly a century.[6]

The comptroller hoped that a company would pay Milwaukee an upfront concession fee of more than half a billion dollars in exchange for the right to control the water utility for as long as 99 years. The city would put the proceeds of the transaction into a special endowment to generate an estimated $30 million annually to fund city services.[7]

Nearly the entire common council believed the idea had merit, and every alderperson present but Joe Davis approved a resolution that authorized the comptroller's office to seek out a team of financial advisers,[8] who would investigate and facilitate a potential privatization. Half a year later, this process came to a grinding halt.

In June 2009, as nearly 200 people rallied on the steps of City Hall to voice their opposition to the privatization proposal, a council committee told the comptroller to hold off on selecting an adviser team and to investigate alternative revenue sources.[9]

"The delay was because of overwhelming public opposition," said Chip Wall, president of the American Federation of State, County and Municipal Employees Local 952, part of District Council 48, which has more than 10,000 members in the area.[10]

AFSCME District Council 48 is a member of Keep Public Our Water, a broad-based coalition of many labor, faith, consumer, environmental and neighborhood organizations, including Food & Water Watch, the Institute for Wisconsin's Future, Milwaukee Riverkeeper, the local chapter of the Sierra Club, Milwaukee Inner City Congregations Allied for Hope and the Riverside Park Neighborhood Association. KPOW opposes leasing the city's water system.

"I feel this lease is a terrible idea for Milwaukee," said Wall. "To give public property to private for-profit entities is not smart."[11]

Karen Royster, the executive director of the Institute for Wisconsin's Future, said the lease proposal is "a desperate measure" that is "shortsighted and would be harmful for the city."[12]

The coalition canvassed neighborhoods, met with public officials and contacted local radio stations and newspapers to inform the public about the privatization proposal. After just a few months of organizing, KPOW was able to convince the common council to delay the lease. It was a major victory, and the coalition intended to continue organizing until the common council passed a resolution ensuring that it would never privatize the water system.

"We hope to ensure that the proposal is buried, for good," said Royster.[13]

Financial Advisers: Aiding and Abetting Privatizations

Generally, the first step in privatizing a public utility is to hire a team of financial advisers. Despite appearances, these advisers are not impartial judges; they can have a strong financial incentive to push through deals.

Who are the advisers? A select group of firms have facilitated or enabled the privatization of public water utilities. They have included:

Malcolm Pirnie, whose "flawed analysis," in words of Massachusetts' Inspector General, found that a long-term sewer lease would save money for Lynn, Mass.[14]

CH2M Hill, which operates municipal water utilities through its subsidiary OMI;[15]

Camp, Dresser, and McKee, which participates in the design, construction and sometimes operation of water plants;[16] and

Arthur Andersen, which collapsed in connection with the Enron scandal.[17]

In recent years, big banks, which also invest in infrastructure, have served as consultants on public works projects.[18] For example, with the financial advice of Morgan Stanley, Akron, Ohio, pushed forward on privatizing its sewers, but residents voted down the plan.[19]

How do the advisers make their money? They are often paid in two parts: (1) a base non-contingent fee, which they receive regardless of the outcome of the privatization, and (2) a contingency fee, which they receive only if the privatization goes through. The contingency fee usually is a percent of the contract value or concession fee.

Milwaukee considered such "success based compensation to be the primary compensation method" for its financial consultants.[20] And of the one and a half dozen teams that applied for the adviser contract, a majority said they would receive payment only if the privatization actually happened. The advisers would have a strong financial incentive to recommend a costly, long-term privatization, even if it were a bad deal for the community.

As Daniel Bice wrote in his column for the Milwaukee Journal Sentinel, "In other words, these would not have been impartial advisors who might conclude that it's not in the city's best interest to turn over control of this most basic life necessity."[21]

Perhaps because of the payment structure, these legal and financial support teams do not necessarily protect communities from inadequate contracts. Lynn, Mass., spent more than $3 million on privatization consultants when it leased its sewer system for 20 years, but according to Robert Cerasoli, the Inspector General of Massachusetts, "[U]nfortunately, this expensive investment in expertise has not protected the ratepayers from a bad deal." Cerasoli found that the lease likely would "result in unnecessarily high costs for ratepayers."[22]

Milwaukee Water Works: A Well-Run Operation

Milwaukee considered leasing its Water Works not because the utility is a burden and liability, but because it is one of its most valuable assets. When Morics first presented the proposal to a committee of the common council, he acknowledged, "If we had another asset to sell, we wouldn't be talking about this." He added, "It's not about the quality. It's excellent. It's managed well. They turn out a fantastic product."[23]

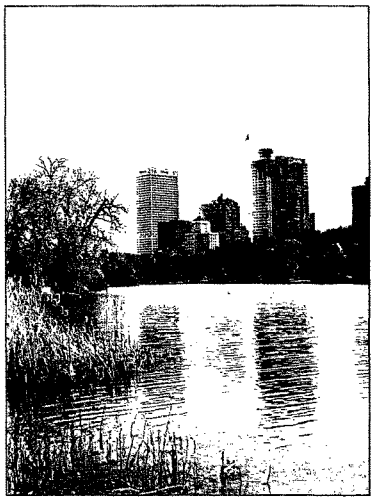
The Milwaukee Water Works is a well-run operation. It has taken a proactive stance on monitoring for potential contamination, going above and beyond the legal requirements. It tests for more than 500 unregulated pollutants, in addition to the 90 compounds required by law, and it was one for the first utilities to monitor for endocrine disruptors and pharmaceuticals.[24]

The results of these analyses, available online in an accessible format, show that Milwaukee meets or exceeds federal and local water quality regulations. For example, in 2008, the utility had no violations, and it detected neither hormones nor endocrine disruptors in its drinking water.[25]

What's more, Milwaukee residents receive this high quality water service for one of the lowest prices in the state,[26] and in the nation. In 2008 the Water Works charged 22 percent less than peer utilities across the country did. Yet, despite their lower water bills, households in Milwaukee spent around the same portion of their income on water service as the typical household nationwide spent. That's because Milwaukee household incomes tend to fall below the national average.[27]

Privatization could affect the quality and the cost of water service.

"I feel this lease is a terrible idea for Milwaukee. To give public property to private for-profit entities is not smart."
– Chip Wall, president of AFSCME Local 952



Cost Analysis

"We have one bullet left," Morics told a committee of the common council, "and that's the Water Works."[28]

Milwaukee faces a considerable revenue shortfall and needs to find a new source of income in order to maintain city services, but a water system lease will not be the silver bullet that solves the city's budgetary problems. In fact, a lease could increase costs and aggravate the community's financial predicament.

An analysis by Food & Water Watch found that a lease could cost the Milwaukee community at least $17 million a year (see table 1).

The analysis looked at two scenarios: a best case and a worst case. The best case began by maximizing the city's revenue through a large concession fee and then it minimized the resulting costs. The worst case assumed a smaller concession fee and took the upper bound of expected costs. Both scenarios predicted that the community would sustain multimillion losses, from $17 million to $31 million a year (see table 1 and table 11 in appendix).

Although the city's general fund could net $7 million to $28 million a year by investing a concession fee into an endowment, water users could have to pay higher rates because of the increase in capital costs (see table 1 and tables 3 and 4 in appendix).

The Wisconsin Public Service Commission regulates all water utilities in the state. It sets water rates to allow utilities to recover the full economic cost of their capital investment, which includes profit, income taxes and interest payments on debt. This analysis found that a long-term lease could increase capital costs by $38 million to $45 million a year (see table 1 and table 10 in appendix). The utility would pass the added expenses onto its customers through higher water charges.

Compared to the municipally run Milwaukee Water Works, a leased utility could have higher interest rates on bonds and other loans and receive a larger return on equity (see tables 5 and 6 in appendix). Uulike the municipal utility, it also would have to pay income taxes on its profits (see table 9 in appendix). The analysis assumed that the value of the utility's capital investment would be the concession fee, so a larger fee would have greater capital costs.

The city's revenue from an endowment seems inadequate to compensate for the increase in capital costs. For every dollar to the city's general fund, water customers, as a whole, could pay approximately $1.60 in the best case and $5.40 in the worst case.

Because of the greater cost of private capital, a lease appears to be an expensive way to raise funding for city services. These findings suggest that a lease of the Milwaukee Water Works is not in the economic interest of the community.

Fo d & Water Watch Analysis: A Lease of the Milwaukee Water Works Could Cost the Milwaukee Community at Least $17 Million a Year

Table 1. NET COST OF LEASING MILWAUKEE WATER WORKS

	Best Case	Worst Case
REVENUES TO MILWAUKEE'S GENERAL FUND	(millions of 2008 dollars)	
(a) Concession fee The city expects to receive a large upfront concession fee from the lessee. The comptroller estimated this fee would be as much as $600 million, which is taken as the best-case estimate. The worst-case concession fee is an approximation of the utility's 2008 rate base.	$600	$300
(b) Defeasance of outstanding debt The city could have to retire the unpaid portions of municipal bonds used to finance improvements to the water utility.	-$27	-$27
(c) Transaction costs Planning, negotiations, arbitration and arrangement of the contract typicalty cost 2 to 10 percent of total project costs, which is assumed to be the concession fee. See table 2 in appendix.	-$12	-$30
(d) Net proceeds from the lease (lines a + b + c)	$561	$243
(e) Net rate of return on endowment The comptroller planned to invest the net proceeds of the lease into an endowment to generate revenue for city services. The endowment could have a net rate of return of as much as 5 percent, based on early projections by the comptroller. The return could be 3 percent, which is the 10-year annualized return on Wisconsin's Local Government Investment Pool as of August 2009.	5%	3%
(f) Annual return on endowment (line d X line e) See table 3 in appendix.	$28	$7
(g) Additional tax revenue to general fund The city should continue to receive payments in lieu of taxes equivalent to the amount paid by the municipally operated utility, and it would not receive additional income tax revenue from the lessee.	$0	$0
(h) Subtotal annual revenue to the city's general fund (lines f + g) See table 4 in appendix.	*$28*	*$7*
EXPENSES PAID BY WATER USERS		
Private capital usually is more expensive than public capital, and the lessee would pass on its added capital costs to water users during rate design. Milwaukee Water Works' rate base was $281 million and its capital structure was approximately 10 percent debt and 90 percent equity in 2008. This analysis assumed that a lessee's rate base would be the concession fee and its capital structure would be 65 percent debt in the best case and 50 percent debt in the worst case.		
(i) Increase in cost of debt Private debt costs more than public debt. Milwaukee Water Works' consolidated cost of debt was 3.5 percent. The interest rate on private debt is assumed to be 5 percent in the best case and 7 percent in the worst case. See table 5 in appendix.	-$19	-$10
(j) Increase in return on equity Private utilities can earn larger returns on their equity investment. Milwaukee Water Works had an estimated 0.89 percent return on municipal equity in 2008. The lessee could earn an 8 percent to 12 percent return on equity, based on the return of a large private water utility in Wisconsin. See table 6 in appendix.	-$15	-$16
(k) Corporate income taxes Unlike the municipal utility, the lessee would have to pay federal and state income taxes on its equity return, its profit, which is grossed up to include these taxes. The state income tax rate is 7.9 percent and the federal corporate income tax rate is 35 percent, for a composite tax rate of 40.1 percent. See tables 7, 8 and 9 in appendix.	-$11	-$12
(l) Subtotal additional annual expenses paid by water users (lines i + j+ k) The increase in capital costs could be fully recoverable through water charges, so it could be included in the utility's revenue requirement during ratemaking. Water users, as a whole, could have to pay $38 million to $45 million a year more in their bills. See table 10 in appendix.	*-$45*	*-$38*
Net Annual Cost to the Community *(lines h + l)* See table 11 in appendix.	***-$17***	***-$31***

Note: Figures based on Milwaukee Water Works' 2008 financial statements. See appendix for methodology.

Rate Increases

"Wally, how is this different from what Milwaukee County did with the transit system? ... They privatized it. They thought it was going to generate revenue. Now the transit system, because of fare increases, is running into difficulties. They balanced the budget on that privatization initiative on the backs of what I consider people of color."

– Milwaukee Alderman Joe Davis asked Comptroller Wally Morics during a common council committee meeting in November 2008.[29]

More than half of Milwaukee residents are people of color,[30] and one in four people lives below the poverty line.[31] Because water bills are regressive, any rate increase will disproportionately affect working families.

Yet, as the cost analysis indicates, rate increases seem inevitable if Milwaukee leases its water utility.[32] In Wisconsin, private utilities charge 59 percent more for water service than public utilities do,[33] and according to EPA, long-term leases with large concession fees — the type of arrangement that Milwaukee seeks — can result in "significant increases" in water prices.[34]

Under Milwaukee's existing law, water charges are liens on the property that receives water service.[35] If a household or business owner fails to pay their bills, Milwaukee can confiscate any personal property belonging to the property owner to sell for payment.[36] During contract negotiations, the city may agree to continue this practice for the private operator.

In Milwaukee, if households and businesses cannot afford to pay their water bills, the lessee could cut off their water service. Worse, it is possible that they would face eviction from their homes or places of business.

Loss of Local Control and Public Choice

"Water is one of Milwaukee's primary resources," said Royster of the Institute for Wisconsin's Future. "I am generally against privatization but this proposal represents a real capitulation by the city to private interests with long term damage to the community."[37]

High costs and high prices are not surprising consequences of water privatization, because water service is a natural monopoly and lacks a true market. Consumers can exercise choice only at the ballot box through the election of the public officials who oversee their utility. If Milwaukee leases its water system, the public would lose its ability to choose.

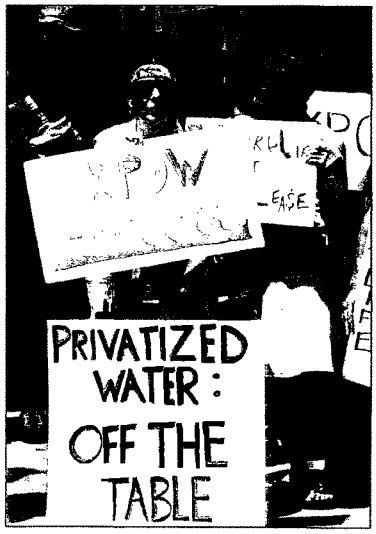


Photo by Jon Kesecker/Food & Water Watch.

The city, too, could not choose another service provider and would be bound to the terms of a single contract for the full duration of the lease, which could be nearly a century. Under most circumstances, assuming no violation of contract provisions, the city could exit the lease early only by paying a substantial termination fee to the leasing company. It is no wonder that Alderman Jim Bohl told his fellow aldermen, in reference to the contract length, "It scares the dickens out of me."[38]

Even the best contracts are unable to account for the changes that occur over a century, and the terms of the lease could restrict the city's ability to respond to shifting social, economic and environmental circumstances, including climate change, which could affect its water supply. The contract length becomes especially important because of the bigh degree of control that the city would abdicate to a private entity. For example, the city would no longer determine water rates or capital improvement plans, which affect water quality.

During contract negotiations, the city also may bargain away its supervision of bulk water sales and service area

expansion.[39] Because a water corporation has different goals than a city does, it will make its decisions using a different set of criteria, often one that emphasizes profitability. This would have important equity and environmental implications.[40] For example, a company may construct water main extensions that encourage sprawl.

Regulation Is Inadequate

Although the Wisconsin Public Service Commission would oversee the privatized utility, much as it currently does for the city operation, regulation fails to compensate for the loss of local control. As the Association of California Water Agencies noted, regulation is "imperfect" and "often provides a poor substitute for marketplace discipline or ballot box accountability."[41]

By its nature, regulators cannot give the same attention to Milwaukee's specific needs as local, elected officials can give. The governor of Wisconsin appoints the three commissioners who direct the Public Service Commission. Their offices are not in downtown Milwaukee but more than an hour west in Madison, and they must oversee 1,110 public utilities and make hundreds of decisions a year.[42]

Milwaukee's common council may have to make only a couple major water-related decisions a year, and residents can visit their alderperson and directly express their concerns about the water operation. If the alderperson fails to respond, the community can vote them out of office. The public lacks similar mechanisms to address their concerns with private utilities and regulators.[43]

Lack of Disclosure

A lack of disclosure further complicates public oversight. Corporations may refuse to reveal certain data by claiming they are confidential or trade secrets, and the general public often is not privy to the same level of information as regulators are. A lack of disclosure impedes public participation.

The initial stages of Milwaukee's lease process are telling of this. There was such little public disclosure about the advisor selection that a column in the *Milwaukee Journal Sentinel* had the headline: "Water consultant deal as clear as mud."[44]

Members of KPOW would agree. According to Royster of the Institute for Wisconsin's Future, the city wanted to keep the lease out of the "spotlight."[45] Indeed, there were no formal public meetings to inform the community, gauge their opinion or address their concerns.[46] Fortunately, KPOW organized and shed light on the issue. "KPOW was the spotlight," Royster said. Its efforts forced the council to delay the lease, she said, "because there was too much noise and attention on the proposal."[47]

Service Concerns

Without strong public oversight, a private operator could cut corners and sacrifice service quality to increase its profits. Such neglect could result in low pressure or discolored water.

Poor performance is the number one reason why cities bring previously contracted services in house. In a survey of 245 municipalities, nearly three-quarters of cities ended privatization because of the contractor's unsatisfactory service.[48]

Private sector performance is usually driven by competition, but municipalities rarely have any real competition for water privatization deals,[49] largely because there are few competitors remaining. Since the 1990s, the market has been consolidating rapidly,[50] and over the last decade, the number of major U.S. contract operators fell from 16 to six.[51]

Despite the lucrative nature of a long-term lease, Milwaukee could receive a limited number of qualified bids. Veolia Water and Suez-owned United Water are two possible bidders. Only the largest water corporations tend to have access to private capital,[52] particularly an amount needed to pay Milwaukee a sizable concession fee.

With little competition, Milwaukee has few choices and less room to negotiate a good contract that protects the interests of its residents. The larger and longer the contract, the narrower the list of viable competitors, which one expert said results "in an oligopolistic market."[53]

"Water is one of Milwaukee's primary resources. I am generally against privatization but this proposal represents a real capitulation by the city to private interests with long term damage to the community."
–Karen Royster, Institute for Wisconsin's Future

Milwaukee faces a difficult financial situation, but a water system lease is not the solution that certain public officials hope it to be. It is not a sure-fire way to generate revenue. In fact, this analysis found that it could have a net public cost of at least $17 million a year.

"The farther you get from competition," Dan Jones, Houston's former deputy director of public works and engineering, told the *Baltimore Sun*, "the less comfort you can have that you're getting a good price." Jones also recommended against turning a full system over to a private operator: "Trading a public monopoly for a private monopoly doesn't seem like a good deal."[54]

Indeed, in the absence of market forces, private operators can have a financial incentive to neglect repairs. "Companies can delay required maintenance in order to receive short-term profits," reported the Association of California Water Agencies, "then argue for increased rates to cover suddenly-critical maintenance requirements."[55]

As a result, the system can deteriorate and water quality and service can worsen. According to a report by the National Rural Water Association, "Asset deterioration can be particularly problematic under the long-term contract operations and the asset lease models."[56]

Can Milwaukee ensure that at the end of a 99-year lease, it would get back a system in good condition?

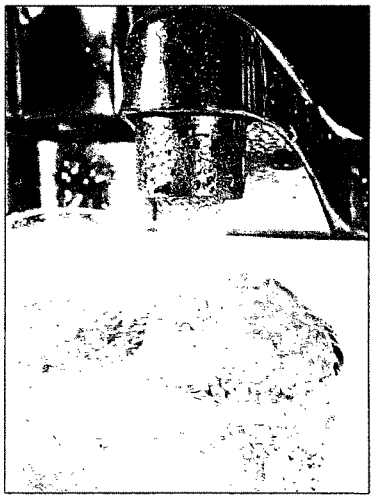
Ways Forward

Milwaukee faces a difficult financial situation, but a water system lease is not the solution that certain public officials hope it to be. It is not a sure-fire way to generate revenue. In fact, this analysis found that it could have a net public cost of at least $17 million a year.

While it is understandable that policymakers want to consider a range of options, they must recognize that the price of pursuing certain endeavors, like a water lease, is not worth the potential outcome. Water privatization requires expensive and time-intensive studies, and it often results in a net loss of public resources.

The city should not pursue a risky financial arrangement. Instead, Milwaukee should aim for a responsible fiscal solution that does not involve considerable costs or jeopardize the quality of its water service.

To those ends, Milwaukee's common council must reject any proposal to lease its water utility. Only with local, public control can Milwaukee ensure that the entire community has access to safe and affordable water service.



Appendix: Methodology of Cost Estimations

The sections below describe the cost estimates from table 1 on page 5 in more detail. These figures are based on Milwaukee Water Works' 2008 financial statements and are expressed in 2008 dollars.

Revenues and expenses are estimated based on two scenarios:

The best-case scenario maximizes the revenue to the city's general fund. It assumes a large concession fee and rate of return on the endowment. It then minimizes costs by taking the lower bound of the range of expected transaction and capital costs.

The worst-case scenario assumes a smaller concession fee, a more typical endowment return and the upper bound of the range of expected transaction and capital costs.

Income to Milwaukee's General Fund

Concession Fee

It is difficult to estimate the market value of a long-term concession of the Milwaukee Water Works for two main reasons: (1) There is no known concession or sale of a U.S. municipal water utility of comparable size; and (2) there is no known lease-concession of a water system in a state that regulates publicly owned utilities. Rate of return regulation could limit the size of the concession fee.

According to news reports, Morics estimated that Milwaukee could receive a concession fee of as much as $600 million.[57] That is greater than the utility's total assets, which was $434 million at the end of 2008,[58] so this analysis uses $600 million as the best-case concession fee.

A standard purchase price for a state regulated utility is the original cost of the utility less depreciation,[59] which is similar to another benchmark for an acquisition price, the rate base.[60] In 2008 the Milwaukee Water Works had a rate base of $281 million. This is the value of the utility financed by the utility or the city, plus materials and supplies, less depreciation and regulatory liability. It excludes the contributed utility plant assets, which the city and utility did not finance.[61] In ratemaking, regulators apply a rate of return to this value to determine the utility's return.

Regulators could decide against adjusting the rate base to allow the lessee to earn a return on the full value of its investment, the concessiou fee. As a result, it is possible that a lessee would pay a concession fee only up to the municipal utility's rate base. For that reason, this analysis takes an approximation of the rate base, $300 million, to be the worst-case concession fee.

Debt Defeasance

In the past, the city has financed large water projects with loans from Wisconsin's Drinking Water State Revolving Fund or general obligation bonds that are exempt from federal income taxes.

A private water utility in Wisconsin typically cannot do the same. The lease agreement could cause the water utility to lose access to tax-exempt bonding and low-interest loans from the state's Safe Drinking Water Loan Program. Although the City of Milwaukee could issue private activity bonds for the lessee, these bonds are subject to restrictive regulations, including a state volume cap.[62]

As of the end of 2008, Milwaukee Water Works had approximately $27 million in outstanding debt: $10 million in Safe Drinking Water State Revolving Fund loans and $17 million in general obligation bonds.[63] The lease could force the utility to retire or defease this debt. To do that, the city would have to place enough cash into an irrevocable escrow account to pay off the bonds as they become due. The trust would purchase essentially risk-free government obligations to the amount, timing and collection of the interest and principal of the defeased bonds.[64] This analysis assumes that the cost of defeasance is approximately $27 million, the outstanding principal of the utility's debt.

Other municipalities have used part of their concession fees to rid their utilities of existing debt during the privatization process. For example, when Cranston, R.I., leased its wastewater utility for 20 years, it used $25 million of the $48 million concession fee to retire the system's outstanding municipal bonds. After meeting all of these obligations, the city had less than half of the concession fee remaining for its general fund.[65]

This analysis assumes that the concession fee would have an initial reduction of $27 million to cover debt defeasance.

Transaction Costs

Leases are complicated and expensive to set up. They involve planning, decision-making, negotiations, arbitration, arrangement and contract supervision.[66] A study of water and sewer systems estimated that transaction costs range from 2 percent to 10 percent of total project costs, although it noted that consistent and comparable data are rare because of the proprietary nature of the information. Transaction costs also are higher in pioneering projects,[67] as Milwaukee's lease would be.

Table 2. Estimated Cost of a Lease Transaction (in millions of 2008 dollars)

	Best Case	Worst Case
(a) Concession fee	$600	$300
(b) Cost of the transaction	2%	10%
(c) Transaction costs (line a X line b)	*$12*	*$30*

The analysis assumes that these costs would be 2 percent of the concession fee at best and 10 percent at worst. So, the transaction costs would be $12 million in the best-case scenario and $30 million in the worst-case scenario (see table 2).

Milwaukee budgeted $10,000 for an initial financial adviser to help select the larger privatization consultant team.[68] Although the comptroller's office has received bids from potential privatization consultants, it has refused to disclose the bidders and their proposed fees.[69] However, based on the proposals he received, Morics realized the city could incur "potentially significant" out of pocket costs.[70]

In fact, Morics noted in his original testimony about the proposal that leases are "complicated" and require time-intensive negotiations, and he referred to one lease document that was more than 800 pages.[71] Because of their complexity, leases require specific contract language to ensure adequate service, but there is an inherent difficulty in drafting specifications for the service of a full utility.[72]

As a result, even with lengthy and expensive negotiations, long-term projects inevitably involve considerable uncertainty, which further inflates contracting costs, since pricey renegotiations are often necessary.[73] A study of more than 1,000 infrastructure concessions in Latin America and the Caribbean found that three-quarters of the water and sanitation contracts were renegotiated, typically within the first two years.[74]

Endowment Return

Early estimates from the city found that a concession fee of as much as $600 million, when invested into an endowment, could generate $30 million a year to fund city services.[75] This produces an annual rate of return, net of fees and overhead, of approximately 5 percent.

Given the condition of the market in 2009, 5 percent is taken to be the best-case net rate of return on an endowment. So, in the best-case scenario, Milwaukee would invest the proceeds of the lease into an endowment that generates $28 million a year for the general fund (see table 3).

In 2009 many investors saw zero or negative returns. In fact, a large part of Milwaukee's 2010 budget shortfall was due to stock market losses on its pension fund, which required the city to contribute nearly $37 million. The city contribution to the pension fund was expected to increase in 2011 and 2012.[76]

To determine a reasonable worst-case expected return on an endowment, this analysis looked at Wisconsin's Local Government Investment Pool. The investment pool had an annual interest rate of 0.33 percent at the end of August 2009, and its 10-year annualized return was 3.40 percent as of the first quarter of 2009.[77] Because the comptroller indicated that he preferred using a 7-to-10-year moving average to determine disbursements to the city,[78] this analysis uses 3 percent as the worst-case net rate of return.

In the worst-case scenario, Milwaukee would invest the net proceeds of the concession into an endowment with a 3 percent return and generate approximately $7 million a year for the general fund (see table 3).

Given the volatility of the stock market, this worst-case value could overestimate the actual return. In addition, Wisconsin's Local Government Investment Pool is more than 100 times the size of Milwaukee's anticipated endowment,[79] so overhead costs could be a larger percentage of Milwaukee's endowment return than they were for this pool.

Table 3. Estimated Return from Investing th Concession Fee (in millions of 2008 dollars)

	Best Case	Worst Case
(a) Concession Fee	$600	$300
(b) Debt defeasance (principal plus interest)	-$27	-$27
(c) Transaction costs (table 2, line c)	-$12	-$30
(d) Net proceeds (lines a + b + c)	$561	$243
(e) Net investment rate of return	5%	3%
(f) Annual net return from endowment (line d X line e)	***$28***	***$7***

Tax Revenue

The Milwaukee Water Works, as a public utility, is exempt from property taxes, so it makes payments in lieu of taxes to the city. Under a long-term lease, the utility should retain this tax-exempt status, since the city would remain the property owner.[80] In this case, the lessee should continue to make property tax equivalent payments equal to the amount the municipally run utility would make. This analysis assumes no change in these revenues to the city.

Indeed, Morics said that he presumed these payments would continue because the city could require it as part of the lease agreement.[81] However, there is a possibility that the city could forfeit this revenue during contract negotiations, possibly in exchange for a larger upfront concession fee. If Milwaukee decides to pursue a lease, city officials must protect residents and negotiate a strong contract that preserves the tax-equivalent payments.

Milwaukee should not see any additional tax revenue from the deal. Although the lessee would have to pay federal and state income taxes, the city does not levy income taxes. In fact, Wisconsin law expressly forbids municipalities from levying tax on incomes.[82]

Further investigation is required to determine whether the city would lose any of its state shared revenue as a result of the lease. At least one alderperson expressed concern about how a lease would affect that revenue source.[83]

Net Income to General Fund

The net income to the general fund is the revenue from the endowment plus additional tax revenue to the city. In the best case, the city could net $28 million for its general fund, and in the worst case, it could net $7 million (see table 4).

Table 4. Estimated Annual Income to the General Fund of the City of Milwaukee (in millions of 2008 dollars)

	Best Case	Worst Case
(a) Annual return on investment (see table 3, line f)	$28	$7
(b) Additional tax revenue	$0	$0
(c) Total annual income (line a + line b)	***$28***	***$7***

Annual Cost to Water Users

Water users could see their rates increase to cover the added cost of private capital.

Cost of Capital

State regulation allows utilities to earn a return on their capital investment. When regulators set water rates, they include interest payments, profits and income taxes in the revenue requirement. This allows utilities to pass on the full economic cost of capital to water users.

Investment Rate Base

The Milwaukee Water Works earns a return on the value of the utility that it or the city financed, plus materials and supplies, less depreciation and regulatory liability. This value, called the rate base, was $281 million in 2008. It does not include the value of the utility assets that were contributed.[84]

Assuming that regulators would adjust the rate base up to the concession price to allow the lessee to recover its investment, the rate base would be $600 million in the best case and $300 million in the worst case.

Capital Structure

Milwaukee Water Works' capital structure was approximately 90 percent municipal equity and 10 percent debt in 2008.[85]

The weighted average capital structure in the water industry is approximately 50 percent equity to 50 percent debt.[86] The Wisconsin Public Service Commissions indicated that this is considered to be the optimum capital structure.[87] However, because private equity usually is costlier than private debt, a smaller equity to debt ratio tends to have a smaller revenue requirement.[88] Therefore, this analysis assumes that the capital structure would be 35 percent equity to 65 percent debt in the best case,[89] and 50 percent equity to 50 percent debt in the worst case.

Cost of Debt

In 2008 the Milwaukee Water Works' composite cost of debt was 3.5 percent,[90] which is nearly half the typical interest rate on private debt.[91]

The six-month daily average coupon on a private utility bond issued between January 1, 2009 and June 30, 2009 was 6.51 percent,[92] and the 12-month bond yield average for a typical public water utility bond was 6.65 percent in 2008.[93] Based on these averages, this analysis assumes that the lessee's cost of debt would be 7 percent in the worst case.

The best-case cost of debt is taken to be 5 percent, based on the composite debt cost of Aqua America, the second largest publicly traded investor owned water utility. Aqua America had a weighted average cost of debt of 5.58 percent in June 2009 and of 5.35 percent at the end of 2008.[94] American Water, the largest publicly traded investor owned water utility in the nation, had a debt cost closer to the average utility bond. As of June 2009, its weighted average cost of debt was around 6 percent and new debt issuance rates ranged from 6.5 percent to 8.5 percent.[95]

Private utilities can access low-interest Drinking Water State Revolving Fund loans in most states but not in Wisconsin, so the lessee of Milwaukee Water Works should expect to have a greater composite debt cost than private utilities in other states. Because of this, 5 percent is a conservative value that could underestimate the cost of privatization.

Based on these assumptions, the lessee's cost of debt would be $20 million in the best case and $11 million in the worst case. That means a lease could increase the annual debt cost by $10 million to $19 million (see table 5).

Tabl 5. Estimated Added Cost of Debt (in millions of 2008 dollars)

	Milwaukee Water Works (2008)	Lease Estimates	
		Best Case	Worst Case
(a) Capital investment	$281	$600	$300
(b) Debt (% of investment)	10%	65%	50%
(c) Total debt (line a X line b)	$28	$390	$150
(d) Composite cost of debt	3.5%	5%	7%
(e) Total cost of debt (line c X line d)	$1	$20	$11
(f) Added cost of debt *(line e - Milwaukee Water Works debt cost)*		***$19***	***$10***

Return on Equity

In 2008, Milwaukee Water Works' total net equity was approximately $250 million, which is the rate base less outstanding debt. The total return on equity was $2 million, which is total net operating income of $3 million less $1 million of debt costs.[96] Thus, its rate of return on municipal equity was 0.7 percent (see table 6).

Private utilities typically can have an after-tax rate of return on equity of approximately 10 percent. It is the industry's desired benchmark return.[97] Wisconsin's only large private utility that provides water service had an authorized rate of return on common equity of 11 percent and a reported rate of return on common equity of 8 percent in 2008.[98] In the past, the Public Service Commission of Wisconsin had authorized returns on equity of at least 13.5 percent, but since the early 1990s, its authorized rates have been around 12 percent.[99]

In this analysis, the best-case scenario assumes an 8 percent return on equity, and the worst-case scenario assumes a 12 percent return on equity. Using these values, the lessee would have a return on equity that is $15 million more than the municipal utility's 2008 return in the best case and $16 million more in the worst case (see table 6).

Table 6. Estimated Added Cost of Equity (in millions of 2008 dollars)

	Milwaukee Water Works (2008)	Lease Estimates	
		Best Case	Worst Case
(a) Capital investment	$281	$600	$300
(b) Equity (% of investment)	90%	35%	50%
(c) Total equity (line a X line b)	$253	$210	$150
(d) Net rate of return on equity	0.7%	8%	12%
(e) Net return on equity (line c X line d)	$2	$17	$18
(f) Added return on equity *(line e - Milwaukee Water Works return on equity)*		***$15***	***$16***

Income Taxes

Milwaukee Water Works as a municipal utility pays no income taxes. It reinvests its earned return into the water utility or the city. A leasing company would have to pay income taxes.

Wisconsin levies a 7.9 percent tax on corporate income,[100] and the federal income tax rate is 35 percent on corporations making more than $18.3 million a year.[101] Assuming that the leasing company or its parent has a consolidated taxable income that falls in this highest tax bracket, the composite tax rate would be 40.1 percent (see table 7).

Income taxes are included in a utility's revenue requirement. The return on equity is adjusted, grossed up, to account for them (see table 7 and table 8, line d).[102] This analysis found that income taxes would be $11 million in the best case and $12 million in the worst case (see table 9).

Total Added Cost to Water Users

The economic cost of capital under a lease is the sum of the cost of debt, return on equity and taxes on corporate income. State regulators add these costs to the revenue requirement during rate design, so with all else equal, any increase in capital costs would correspond to higher rates for water users.

In the best-case scenario, the economic cost of capital would be $48 million. That means the lease would add $45 million onto the revenue requirement (see table 10).

In the worst-case scenario, the economic cost of capital would be $38 million. That means the lease would add $35 million onto the revenue requirement (see table 10).

Based on this analysis, a lease could increase the utility's revenue requirement by $38 million to $45 million a year. This would be an increase of 55 percent to 65 percent over the Milwaukee Water Works' operating revenues in 2008.[103]

Table 7. Tax Factor

Whole return on equity	100.0%
- State tax rate	7.9%
	92.1%
X Federal tax rate	35.0%
Effective federal tax rate	32.2%
+ State tax rate	7.9%
Composite tax rate	*40.1%*
Gross up factor = [1 / (1-composite tax rate)]	
Gross up factor:	1.67043

Table 8. Weighted Economic Cost of Capital

Financial Capital Structure	Best Case				Worst Case			
	Amt (millions)	Ratios	Cost	Wgt'd Cost	Amt (millions)	Ratios	Cost	Wgt'd Cost
(a) Equity	$210	35%	8%	2.80%	$150	50%	12%	6.00%
(b) Debt	$390	65%	5%	3.25%	$150	50%	7%	3.50%
(c) Capital investment	$600	100%		6.05%	$300	100%		9.50%
(d) Income taxes [(gross up tax factor - 1) X line a]				1.88%				4.02%
(e) Economic cost of capital (line c + line d)				***7.93%***				***13.52%***

Table 9. Income Tax Calculation (in millions of 2008 dollars)

	Best Case	Worst Case
(a) Total capital	$600	$300
(b) Weighted cost of income taxes (see table 8, line d)	1.88%	4.02%
(c) Income taxes *(line a X line b)*	***$11***	***$12***

Table 10. Estimated Added Economic Cost of Capital (in millions of 2008 dollars)

	Milwaukee Water Works (2008)	Lease Estimates	
		Best Case	**Worst Case**
(a) Capital investment	$281	$600	$300
(b) Economic cost of capital (see table 8, line e)	0.97%	7.93%	13.52%
(c) Economic cost on capital (line a X line b)	$3	$48	$41
(d) Added economic cost of capital *(line c – Milwaukee Water Works economic cost of capital)*		***$45***	***$38***

Little Potential for Efficiency Gains in Utility Operation

Since Milwaukee Water Works is already a well run utility, it seems unlikely that a private operator could cut costs to offset a substantial amount of its greater cost of capital without impairing the quality of the service.

For example, private managers often cut labor costs by downsizing the workforce or reducing employee benefits, but it can worsen service.[104] Reduced staffing, for example, can result in slower response times for repairing broken water lines and answering customer service requests. For that reason, maintaining full staffing for distribution repair crews is Milwaukee Water Works' strategy to meet its performance goal of repairing main breaks within a day.[105]

It would be improper to compare operational costs when service quality differs, as it would not be an apples-to-apples comparison. Therefore, this analysis assumes that privatization would not reduce operational costs.

Moreover, studies have shown that in terms of operating efficiency, private utilities are not more efficient than public utilities. In addition, the results of one meta-analysis suggested that efficiency gains of private utilities, if any, tended to decline over time.[106]

Although efficiency gains appear impractical while maintaining the same service level, if a lessee wanted to offset the higher capital costs predicted in the best-case scenario, it would have to eliminate nearly all the utility's operation and maintenance expenditures, which totaled $46 million in 2008.[107]

Net Cost to the Community

The net cost to the community is the revenue from the endowment less the added economic cost of capital. This analysis finds that a lease of the Milwaukee Water Works could cost the community between $17 million and $31 million a year (see table 11).

In the best-case scenario, the lease would yield an additional $28 million for the city's general fund, and water customers, as a whole, would have to pay $45 million a year to cover the increased capital costs. It results in a net cost to the community of $17 million a year (see table 11). Even assuming a lower cost of debt and equity, more favorable capital structure and lower transaction costs, the revenue from the endowment fails to compensate for the increase in capital costs.

In the worst-case scenario, the lease would yield an additional $7 million for the city's general fund, and water customers, as a whole, would have to pay an extra $38 million a year. It results in a net cost to the community of $31 million a year (see table 11).

Table 11. Net Cost of a Lease (in millions of 2008 dollars)

	Best Case	Worst Case
(a) Additional income to Milwaukee's general fund (see table 4, line c)	$28	$7
(b) Additional economic cost of capital (see table 10, line d)	-$45	-$38
***(c) Total cost of a lease** (line a + line b)*	***-$17***	***-$31***

These results suggest that a lease is not in the economic interest of tbe community.

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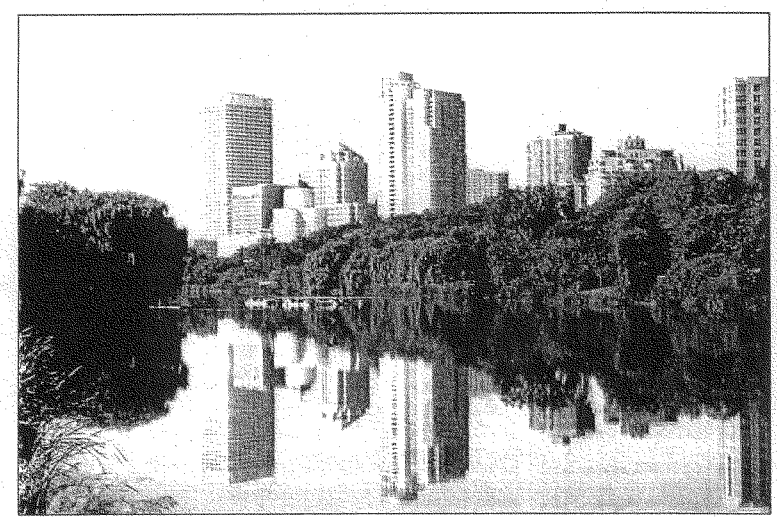

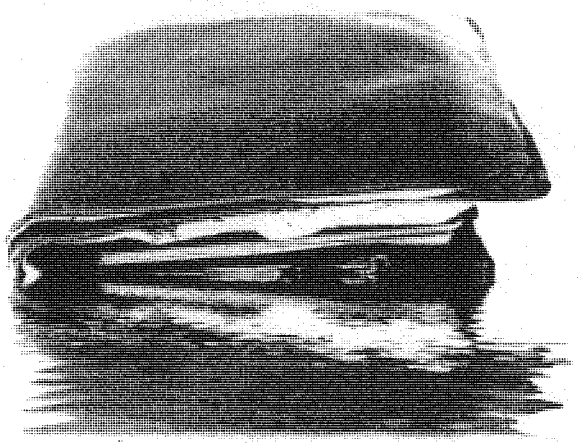

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RE: Increasingly frequent shutdowns of the Colorado River Aqueduct for maintenance and repair are the biggest drivers of rising water bills in Southern California.

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Metropolitan Water District wages costly war with nature and age

Increasingly frequent shutdowns of the Colorado River Aqueduct for maintenance and repair are the biggest drivers of rising water bills in Southern California.

Michael Hiltzik, March 18, 2012

Out in the desert, the wind never quits. Over its howling one day recently, Roy Howard strained to make himself heard as he explained why its usual accompaniment, the rush of water and the rumble of enormous industrial pumps, had fallen silent.

We were at the Metropolitan Water District's Julian Hinds Pumping Plant, situated at the edge of Joshua Tree National Park and about 20 miles north of the Salton Sea. Hinds is one of five pumping plants on the Colorado River Aqueduct. And it's the last point on the 242-mile journey of Colorado River water from Lake Havasu on the California-Arizona border where pumping is needed. Gravity carries the water the rest of the way to the aqueduct's terminus, Lake Mathews in Riverside County.

As I braced myself against the gale, Howard pointed out nine switches that will be replaced on the plant's electrical grid and the locations of nine expansion joints to be refurbished on the 10-foot-diameter pipes that carry pumped water 441 feet up the side of a mountain.

So that work can be done, the aqueduct has been shut down, a once rare but increasingly frequent event dictated by the demands of maintenance and rehabilitation of the MWD's aging system. The contractors have exactly 19 days and three hours to finish the job, counted back to Feb. 28 at noon, when the shutdown started and the aqueduct went dry.

"After that, we have to be sending water up that hill," Howard, the rehab project's resident engineer, told me in clipped military tones, which sounded entirely appropriate given the

rigorous logistics of the job. "For every day they're late, they have to pay us $75,000 in liquidated damages," Howard said, referring to the construction contractors, "but that's a fraction of the millions Met would lose by not delivering water."

The Hinds plant is one of the front lines in the MWD's war with nature and age. The battlefield is largely invisible to the average Southern California water user, whether an industrial plant manager, a farmer or a homeowner with garden hose in hand, pool in the backyard and three bathrooms indoors, who probably has little idea of what's been pushing water rates higher. Key fact: It's not the H_2O, which accounts for only about one-fifth of the bill. The water service bill of the average Southern California family of four will include about $34 a month in MWD charges, not including add-on fees charged by its local water district; of that, about $7 is the cost of the water itself.

"The repair and replacement of our aging infrastructure is probably the No. 1 driver of our rates," says MWD General Manager Jeffrey Kightlinger, who had invited me and Times photographer Al Seib along on his inspection visit to the work at Hinds.

In the 1990s, the MWD says, the huge water district's annual average capital budget of about $500 million included perhaps $30 million for maintenance. The rest went to expanding facilities to manage growth and provide storage, including the construction of Diamond Valley Lake reservoir near Hemet.

Over the next two years, the capital budget will average about $275 million a year, but as much as 60% will cover maintenance and repair of infrastructure that includes the Colorado aqueduct, begun in 1933, and the MWD's share of similar costs incurred by the State Water Project, which carries water from Northern California.

The bill for all this is already in the mail. From 1995 through 2003, the MWD went without a rate increase; then rates began climbing, with a cumulative increase of nearly 70% from 2008 through this year. Next month the district's board will consider a proposal to raise rates about 12% over the next two years.

Some of that will cover the costs of an entirely unexpected development, the appearance after 2007 of the dreaded quagga mussel in the Colorado River system. The tiny pest, an ineradicable interloper that probably made its way to the river from the Great Lakes by hitching rides on recreational boats, can clog channels, pipes and other waterworks if not regularly blasted away or scraped off.

The MWD has spent $30 million over the last five years to fight the quagga and might be spending $8 million to $10 million a year on it into the unfathomable future.

As it is in so many other respects, when it comes to facing the challenges of maintaining such an indispensable infrastructure, California is a bellwether for the country.

That's despite the relative youth of water systems in the West compared with other regions: More than 60% of the Northeast's large-scale water infrastructure but less than 10% of the West's dates

to the 1920s or earlier, according to the American Water Works Assn., which represents water utilities and consultants.

The group estimates the nationwide bill for maintaining and expanding existing water treatment and delivery systems will come to $1 trillion over the next 25 years.

Yet for the arid West, the distribution of imported water is much more crucial, lending more urgency to upkeep.

"California has embedded water into their whole climate change and climate adaptation and greenhouse gas planning," says Lynn Broaddus, director of environmental programs at the Racine, Wis.-based Johnson Foundation, which has hosted a series of conferences on water policy. "Hands down, California is way out in front of the rest of the country on that."

Like other systems around the country, the MWD has to manage its maintenance responsibilities while balancing the pressures of waning demand, waning supply and straitened means. Overall water use in the MWD's service area, which covers a population of 19 million, has fallen nearly 30% since 2006-07. Kightlinger reckons that about half of that decline is due to the slow economy, with the rest divided between conservation and the effect of cooler weather.

Meanwhile, the world has shifted under the MWD's feet. "In the 1990s, we were mostly worried about keeping up with the booming economy," Kightlinger says. "Before 2000, we didn't have time to deal with maintenance" — demand was so great and growing, and storage scarce, that the district had to run water through the aqueduct at full bore. "It was use it or lose it, so we used to shut down the Colorado River system really rarely."

Some of the work being done now was plainly years overdue. Some electrical switches being retrofitted at Hinds — big manual levers that break connections in the grid so high-tension power lines and insulators can be maintained or renovated — were so corroded and rusted over by 75 years of exposure to the elements that maintenance crews needed hammers and chisels to budge them.

Other work will vastly extend the useful life of existing equipment at a savings of millions of dollars. To upgrade expansion joints in the plant's three hillside pipelines, which accommodate a temperature range of sub-zero to 120 degrees, Howard's crews will blast away decades of corrosion and coat the bare metal with four layers of weather-resistant resin — staving off the need for replacement for another 25 or 30 years.

Think of it as being penny-wise and pound-wise. "We've got an 80-year-old Colorado system and a 50-year-old State Water Project system, and we're not going to get a new system," Kightlinger says, "so we're spending what it takes."

Michael Hiltzik's column appears Sundays and Wednesdays. Reach him at mhiltzik@latimes.com, read past columns at latimes.com/hiltzik, check out facebook.com/hiltzik and follow @latimeshiltzik on Twitter.

Preserving The Environment •
Improving Water Quality

Statement of Kevin L. Shafer, P.E., Executive Director
Milwaukee Metropolitan Sewerage District
To the Subcommittee on Water Resources and Environment
Committee on Transportation and Infrastructure
U.S. House of Representatives
Hearings on Review of Innovative Financing Approaches
for Community Water Resources Projects – Part II
March 21, 2012

Long before and after the enactment of the federal Clean Water Act of 1972, the Milwaukee Metropolitan Sewerage District ("MMSD") planned, financed and constructed a range of clean water transport and treatment facilities. These actions represent our watershed's commitment to control wastewater and stormwater runoff and protect clean water for our watershed and Lake Michigan. We have also partnered with the communities that our system serves to advance wastewater collection and stormwater management.

Recognizing continuing population growth in the Great Lakes basin and the nation and the emerging clean water challenges, additional infrastructure will be necessary to sustain public health and protect water resources, communities, water quality, and expand jobs in our region and the United States for years to come.

As with transportation infrastructure, dedicated revenue is indispensable to advance the nation's investments for meeting these challenges in this period of national fiscal stress. Local governments already provide and will continue to provide funding including debt financing for the vast majority of these investments. However, these costs fundamentally require continuation of the nation's commitment to federal investments in infrastructure construction and renewal recognizing the overwhelming costs and expanding resources that will be necessary in this century.

The report of the Water Infrastructure Network in 2000 provided an estimated total need of $550 billion for wastewater facilities and $450 billion for drinking water facilities. MMSD strongly supports your efforts and those of your colleagues in Congress to provide part of the resources for these efforts representative of the nation's commitment to clean water.

The opportunity and imperative now before the United States is to expand the national contribution to investments in wastewater infrastructure through the enactment of a National Clean Water Trust Fund financed by new dedicated revenue. The guiding principles for identifying dedicated revenue sources in the form of user fees from the national economy are that they should be low-rate, broad based, long-term, sustainable, reliable, fair and equitable.

The Government Accountability Office reported on revenue options for this purpose in its May 2009 report: *Clean Water Infrastructure: A Variety of Issues Need to Be Considered When Designing a Clean Water Trust Fund.* Attached is a copy of this report for the hearing record.

Also attached to this statement for the record is a summary of the need for a national clean water trust fund and of suggested principles for trust fund legislation to support local government construction programs. This legislation would address both clean water and drinking water requirements; expand State Revolving Fund loan and bond insurance and guarantee programs and, with new resources, add matching grant funding, both of which would be administered through the states under their Revolving Fund Programs.

Further, trust fund legislation should expand research, development and full-scale demonstration of advanced wastewater and drinking water technologies; expand water quality management planning by states, local governments and substate agencies as required by the Clean Water Act on an integrated priorities basis; and provide further support to the states for administering their essential programs established by the Clean Water Act and the Safe Drinking Water Acts.

In addition to my role at MMSD, our utility has long been a member of the National Association of Wastewater Agencies on whose board I serve and of which I am a past president. I and many colleagues in the United States are members of the Water Environment Federation ("WEF"). Attached is WEF's policy statement on clean water infrastructure.

Thank you and the committee for your interest and leadership on clean water infrastructure. We look forward to assisting Congress as possible to develop and consider clean water trust fund legislation.

NOTE FROM THE EDITORIAL OFFICE OF THE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE:

Following are the first two pages of the Government Accountability Office report to congressional requesters entitled, "Clean Water Infrastructure: A Variety of Issues Need to Be Considered When Designing a Clean Water Trust Fund," May 2009.

The report appears in its entirety at http://www.gao.gov/assets/300/291771.pdf.

United States Government Accountability Office

GAO

Report to Congressional Requesters

May 2009

CLEAN WATER INFRASTRUCTURE

A Variety of Issues Need to Be Considered When Designing a Clean Water Trust Fund

GAO-09-657

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Highlights

Highlights of GAO-09-657, a report to congressional requesters

May 2009

CLEAN WATER INFRASTRUCTURE

A Variety of Issues Need to Be Considered When Designing a Clean Water Trust Fund

Why GAO Did This Study

The Environmental Protection Agency (EPA) has estimated that a potential gap between future needs and current spending for wastewater infrastructure of $150 billion to $400 billion could occur over the next decade. A number of entities are involved in planning, financing, building, and operating this infrastructure. Some of these stakeholders have suggested a variety of approaches to bridge this potential gap. One such proposal is to establish a clean water trust fund. In this context, GAO was asked to (1) obtain stakeholders' views on the issues that would need to be addressed in designing and establishing a clean water trust fund and (2) identify and describe potential options that could generate about $10 billion in revenue to support a clean water trust fund. In conducting this review, GAO administered a questionnaire to 28 national organizations representing the wastewater and drinking water industries, state and local governments, engineers, and environmental groups and received 22 responses; reviewed proposals and industry papers; interviewed federal, state, local, and industry officials; and used the most current data available to estimate the revenue that could potentially be raised by various taxes on a range of products and activities.

GAO is not making any recommendations. While this report identifies a number of funding options, GAO is not endorsing any option and does not have a position on whether or not a trust fund should be established.

View GAO-09-657 or key components. For more information, contact Anu Mittal at (202) 512-3841 or mittala@gao.gov.

What GAO Found

In designing and establishing a clean water trust fund, stakeholders identified three main issues that would need to be addressed: how a trust fund should be administered and used; what type of financial assistance should be provided; and what activities should be eligible to receive funding from a trust fund. While a majority of stakeholders said that a trust fund should be administered through an EPA partnership with the states, they differed in their views on how a trust fund should be used. About a third of stakeholders responded that a trust fund should be used only to fund the existing Clean Water State Revolving Fund (CWSRF), which is currently funded primarily through federal appropriations, while a few said it should support only a new and separate wastewater program. A few stakeholders supported using a trust fund to support both the CWSRF and a separate program, while others did not support the establishment of a trust fund at all. In addition, more than half of the stakeholders responded that financial assistance should be distributed using a combination of loans and grants to address the needs of different localities. Finally, although a variety of activities could be funded, most stakeholders identified capital projects as the primary activity that should receive funding from a clean water trust fund.

A number of options have been proposed in the past to generate revenue for a clean water trust fund, but several obstacles will have to be overcome in implementing these options, and it may be difficult to generate $10 billion from any one option by itself. Funding options include a variety of excise taxes as shown in the table below.

Estimated Revenue from Excise Taxes on Products That May Contribute to the Wastewater Stream (in millions of 2009 Dollars)

Product groups	Tax base	1% tax	5% tax	10% tax	Tax rate to generate $10 billion
Beverages	$85,551	$856	$4,278	$8,555	10.5%
Fertilizers and pesticides	26,088	261	1,304	2,609	38.3%
Flushable products, including soaps, detergents, cooking oils, and toiletries	63,241	632	3,162	6,324	15.8%
Pharmaceuticals	156,069	1,561	7,803	15,607	6.4%
Water appliances and plumbing fixtures	25,517	255	1,276	2,552	39.2%

Source: GAO analysis of U.S. Census Bureau data from the 2006 Annual Survey of Manufactures and Foreign Trade Division.

In addition, Congress could levy a tax on corporate income. An additional 0.1 percent corporate income tax could raise about $1.4 billion annually. Congress also could levy a water use tax. A tax of 0.01 cent per gallon could raise about $1.3 billion annually. Regardless of the options selected, certain implementation obstacles will have to be overcome. These include defining the products or activities to be taxed, establishing a collection and enforcement framework, and obtaining stakeholder support for a particular option or mix of options.

National Investments in American Clean Water Infrastructure

An American Clean Water Trust Fund to Support National Clean Water Goals

March 2012

All Americans benefit from clean and safe water. Adequately performing, sustainable and continuously improving wastewater and water infrastructure is critical to protect public health and the environment, and economically strong and vibrant American communities. These expenditures are financed chiefly by local governments.

The federal government made significant investments to contribute to achievement of secondary treatment for wastewater in the 1970s and 1980s through Clean Water Act grant funding. But construction for control of combined and separate systems wet weather overflow controls and of more stringent water quality-based treatment remains a local cost alone.

Expanded national investments including grants supported by national dedicated revenue would:
(1) advance the national commitment to clean water;
(2) provide jobs;
(3) provide a further incentive for investments by local governments in wastewater and drinking water infrastructure;
(4) support compliance with enforceable Clean Water Act requirements;
(5) capture benefits to down stream users now financed by communities upstream;
(6) expand community sustainability;
(7) add to the Nation's infrastructure base and related economic benefits; and
(8) assist with the replacement of aging infrastructure some parts of which are over 100 years old.

Local Rate Increases & Improved Management *Alone* Are Not Sufficient

Local governments spend $63 billion annually on clean water infrastructure – second only to education. Since the inception of the Clean Water State Revolving Fund loan program in 1990, local governments have financed most facilities with municipal bonds or SRF loans requiring repayment from local customer fees. Over 97% of all wastewater construction is financed using local resources provided by local economies.

The National Association of Clean Water Agencies ("NACWA") has reported that member agencies responding to its 2009 Service Charge Survey reported average rate increases of 8.5% while the national Consumer Price Index fell by 0.4% that year. NACWA, 2009 Service Charge Index. In the wastewater community, private financing generally has been avoided since private companies must provide a profit to shareholders and pay taxes. An efficient public wastewater utility further reduces total service costs freeing more investment capital than an efficient private utility.

Utility Management: Over the past decade local utilities have expanded the use of tools known as asset management. The use of these tools is considered in developing capital project estimates.

An Environmental Protection Agency ("EPA") source has said that the rate of adoption of asset management has been very fast over the last couple of years. At least 50% of the larger utilities are well on their way to adopting significant aspects of an asset management approach. Within a couple more years, there will be very few utilities, that aren't moving towards basic asset management practices.

Water Efficiency: More efficient water use, which may cut operation and maintenance costs initially, is short-run fine-tuning. It may reduce the need to invest today in growth-related infrastructure, but estimates of the national funding gap do not include a component for growth. By reducing demand on treatment plants, water conservation can at best defer investments in capacity expansion, but in the long run, nothing else changes.

Watershed Management: Reduction in costs from the application of watershed management are estimated as limited across the country and the potential to reduce investments at wastewater utilities is limited to perhaps 2-3% based on the number of water-quality limited stream segments that contain POTWs.

Economic Benefits of Wastewater Investments

Public investments in wastewater facilities improve: (1) competitiveness for American industry, (2) jobs, (3) private profitability, and (4) wages, which in turn yield higher tax revenues. Businesses, particularly manufacturers, benefit from continual improvement in wastewater treatment facilities.

An increased national commitment to meeting the gap in clean water infrastructure would be a sound national economic investment. Each $1 billion in wastewater improvements generates over 47,000 direct and indirect jobs. By comparison, total job creation by highway and road construction has been estimated to be approximately 34,000, for each $1 billion spent. *A Report on Clean Water Investment and Job Creation* prepared by the National Utility Contractors Association by Apogee Research, Inc., March 30, 1992.

Additionally, the U.S. Conference of Mayors has reported that construction of wastewater facilities infrastructure has an estimated gross domestic product multiplier of 6.3 to 1.

Grant funding is a stronger economic incentive: Only federal grants can provide adequate incentive and capital for moving the national clean water program forward at an appropriate pace recognizing the burden of massive requirements placed on local governments. Additionally, national grants limit local fiscal impacts and thereby incentive for businesses to move to other communities where local rates are not as high.

Finally, infrastructure networks are a national priority with social, economic and environmental equity implications when provided unevenly across America.

National, Sustainable, Long-Term, Reliable Capital

National requirements for wastewater infrastructure are driven by: (1) the federal Clean Water Act enforced by EPA and NPDES delegated states; and (2) three waves of aging

infrastructure constructed from the late 19th Century to the 1960s, the useful lives of which are now ending. Approximately $10 billion dollars annually is required to close the national gap in wastewater infrastructure construction, with a similar amount for drinking water infrastructure.

In 2000, a coalition of organizations under the Water Infrastructure Network ("WIN") documented the importance of a national source of sustainable, reliable and long-term capital recognizing that all Americans benefit from clean water. The WINow 2000 Report projected that the costs of maintaining and advancing water quality and reducing wet weather flows would require $550 billion in new construction. An additional $450 billion is needed in new, drinking water construction.

In 2002 and 2003, EPA and the General Accountability Office reported a gap of $300 billion to $500 billion between what is being spent and what needs to be spent on legacy infrastructure replacements and new construction to meet future water quality requirements. EPA's *Progress in Water Quality Report* issued in 2000 concluded that, if improvements are not made, America could see a return to pre-Clean Water Act levels of stream impairments by as early as 2016.

- National requirements for clean water are estimated to cost well beyond local governments' ability to pay and will result in major increases in local water and wastewater rates nationwide.

- Wastewater infrastructure is no less important than other infrastructure because of the value of clean water to the nation as a whole, public health of American communities, the downstream and interstate impacts of polluted waters, and the networking benefits of such facilities.

- Local governments are simultaneously building other infrastructure to assure public health, safety and well-being. Debt incurred from all infrastructure needs is a major burden on communities, thereby, limiting future borrowing capacity, and the ability to meet national water quality goals and objectives.

- Grants capture down stream clean water benefits: Treated wastewater is a national public good. Under present financing arrangements including the CWA SRF loan program, down stream communities and their ratepayers realize, but do not contribute to, clean and safe water benefits from infrastructure improvements financed by upstream communities. Expanded federal funding that includes matching grants supported by national dedicated revenue would capture those benefits.

- Continuing advances in water and wastewater infrastructure technology, , are critical to public health and water quality improvements, improved service, and effective asset management.

- Expansion of SRFs provide additional funding to pay for municipal bond insurance and guarantees now authorized for the existing SRF programs and thereby attract more private capital.

A sustainable source of new public capital is essential: Local capital funding, municipal bonds, and SRF loan paybacks all increase local customer rates. As rates increase, the ability of

local governments to pay off bonds and SRF loans decreases, and with it, local government credit ratings on which further bond financing and loans are based.

New capital from a national source, representative of the national funding gap and the national commitment to clean water, is fundamental and essential to advance water quality in America. Even with federal grant funding, most of the cost of infrastructure improvements will be financed by local customer rates.

Elements of a National Clean Water Trust Fund ("NCWTF")

Essential Objectives and Uses include:

- Matching grants to local utilities for construction of wastewater treatment and transport facilities, overflow controls, and biosolids treatment.
- Matching grants to states to further capitalize state revolving funds for loans, bond insurance and other SRF assistance.
- Research, development and full-scale demonstration of advanced wastewater treatment technologies.
- Grants to advance watershed management including substate water quality management planning for American rivers, lakes and streams.
- Grants for urban stormwater and rural nonpoint source management.
- Grants for rural nonpoint source programs.
- Permanent funding for § 106 Clean Water Act state program management grants to support §301 water quality standards; §303(e) continuing planning process by states; and the §402 NPDES permit program.
- Grants for substate water quality management planning under §208.
- Permanent funding for the §319 nonpoint source program and other CWA programs.
- Other similar authorities under the Safe Drinking Water Act.

National Clean Water User Fees

All Americans – citizens and businesses -- benefit from clean water and all should contribute to a renewed national commitment. To be successful and nonburdensome, revenue sources to finance a trust fund would be:
(1) funded from the national economy instead of local economies,
(2) long-term,
(3) sustainable,
(4) reliable,
(5) low rate, and
(6) broad-based.

One combination of clean water user fees meeting these criteria include:

- Low rate user fees on a range of flushable products sold nationally;
- Low rate fee on the national corporate income;
- Fines and penalties collected under the federal Clean Water Act; and
- Other similar user fees.

Such revenue also helps reduce the current deficit in the federal General Fund.

States could be authorized to charge an additional increment on national fee sources for use in further aiding wastewater construction in their states.

National, dedicated revenue trust funds have been extremely successful as a source of national capital devoted to national infrastructure improvements.

Federal or state taxes on local governments or their wastewater and water utilities would only increase the burden on local governments and local economies, and are opposed by local governments and their national organizations.

A national clean water trust fund would be deficit neutral because it would be financed by new revenue, dedicated to the purposes and uses of the fund. Authorizing legislation would establish a fire-wall to assure that the funds would be spent only for those purposes on an annual basis.

Wide National Support

An overwhelming majority of Americans (84%) would support legislation in the U.S. Congress that would create a long-term, sustainable and reliable source of federal funding for clean and safe water infrastructure. Luntz Research.

The Clean Water Trust Fund has attracted support from many individuals and organizations as reported by the Clean Water America, www.cleanwateramerica.org. Among supporting national organizations are:

Ducks Unlimited, Trout Unlimited, American Rivers, National Association of Towns and Townships, Association of State and Interstate Water Pollution Control Administrators, American Society of Civil Engineers, Western Coalition of Arid States, Rural Community Assistance Partnership, National Association of Clean Water Agencies, American Sportfishing Association, American Council of Engineering Companies, Theodore Roosevelt Conservation Partnership, Construction Management Association of America, International Association of Fish and Wildlife Agencies, American Public Works Association, Association of Equipment Manufacturers, The Associated General Contractors of America, Design Build Institute of America, Underground Contractors Association, Plastics Pipe Institute, American Concrete Pressure Pipe Association, American Supply Association, Portland Cement Association, Associated Equipment Distributors, BASS/ESPN Outdoor.

2009 General Accountability Office Report

In December 2007, Congressman James Oberstar, Chairman of the House Transportation and Infrastructure Committee requested the U.S. General Accountability Office ("GAO") to conduct a study of potential revenue sources for a National Clean Water Trust Fund.

GAO's report, *A Variety of Issues to be Considered When Designing a Clean Water Trust Fund Bill*, was issued in May 2009 and hearings were held on the report by the House Transportation and Infrastructure Committee on July 15, 2009.

The 2009 GAO report reviewed and analyzed the following national revenue options: (1) excise taxes on flushable products, pesticides, fertilizers, pharmaceuticals, and water appliances and plumbing fixtures; (2) an additional tax on corporate income; (3) a water use tax based on volume and added to residential, commercial, industrial utility rates paid by local customers and collected by local utilities; and (4) an industrial discharge tax.

Water Protection & Reinvestment Act of 2009, H.R. 3202 Introduced

H.R. 3202 was introduced in the 111th Congress on July 15, 2009 by Congressmen Earl Blumenauer (D-OR), Tom Petri (R-WI), Norm Dicks (D-WA), Mike Simpson (R-ID) and Steven LaTourette (R-OH). Thirty-five

additional cosponsors signed onto the bill in the last Congress.

H.R. 3202 would have established a Water Protection and Reinvestment Trust Fund to provide matching grants, loans and additional subsidization through the Clean Water and the Drinking Water state revolving fund programs for construction of local wastewater and drinking water facilities and wet weather controls for wastewater systems. Funding would also be provided for climate change mitigation and adaptation, infrastructure security, and related purposes.

The annual total capitalization of the Fund for all purposes was proposed at $10 billion. This amount represents 50% of the annual national gap in wastewater and drinking water infrastructure construction needs combined which totals over $20 billion. An additional $3 to $4 billion is needed to support: (1) research, development and demonstration of advanced wastewater treatment and drinking water treatment technologies; (2) Sec. 319 nonpoint source programs and urban stormwater best management practices; (3) state clean water and drinking water programs; Sec. 208 watershed management planning; and (4) other supporting programs.

H.R. 3202 would have enacted revenue to support the trust fund in the form of: (1) excise taxes on water based beverages, water disposal products such as soaps/detergents, toiletries, toilet tissue, water softeners and cooking oils; and (2) a water restoration tax on corporate income.

State and Other Programs Support

H. R. 3202 would have also provided funding for grants through the trust fund for a range of state programs including: (1) § 106 CWA state program management; (2) §319 CWA nonpoint source; and (3) §1442(c) SDWA training and §1442(e) SDWA technical assistance to small drinking water systems; and a new §410 CWA drug take-back program, among others.

Conclusion

Continuing under-investment in clean water threatens water resources, the environment, public health, community sustainability and the national economy. The national government is best able to provide new sources of capital for national investments in essential infrastructure because funding can be available even in periods of fiscal stress by:

- Support from the national economy rather than depending on local economies alone;
- Removing the present clean water and drinking water SRFs and related program costs from the federal General Fund to reduce its deficit; and
- Providing new funds supported by dedicated revenue to move the national clean water program forward for the benefit of all Americans.

Enactment of a National Clean Water Trust Fund financed by a fair and equitable system of clean water restoration user fees would provide a national source of capital to contribute to meeting national clean water goals.

Robert C. Weaver, Kelly & Weaver P.C., Suite 500, 1601 Connecticut Avenue, N.W., Washington, D.C. 20009,202 797-7100, fax 939-6969, weaver@kellyweaver.com

Water Environment Federation
the water quality people

Financial Sustainability for Water Infrastructure

Adopted by WEF Board of Trustees: February 5, 2010

We have made good progress toward achieving national water quality and drinking water goals since the passage of the Clean Water Act in 1972 and the Safe Drinking Water Act. High levels of drinking water and wastewater treatment are the norm throughout the United States and we enjoy one of the highest levels of water quality in the world.

Despite this progress, impaired waters still persist. Recent assessments indicate that water quality improvements may have reached a plateau in spite of the current levels of investment by federal and state programs and by water and wastewater utilities According to 2006 to 2008 State assessments reported to EPA, 63% of assessed estuaries and 49% of assessed rivers and streams have impaired water quality due to a variety of sources, including inadequately treated wastewater.

One of the most critical issues facing Americans is how to improve and maintain our infrastructure to ensure that we fully enjoy the health, economic and social benefits that clean and safe water provide. Infrastructure problems associated with aging pipes, outdated treatment systems, and inadequate capacity to meet growing population demands are requiring many communities to make huge investments in upgrades to their water and wastewater infrastructure systems. In 2002, EPA estimated a potential gap for wastewater infrastructure capital improvements, along with operations and maintenance, of about $150 billion to $400 billion over the period from 2000 to 2019. EPA has also estimated that the nation's water utilities will need to invest about $335 billion over the next 20 years on drinking water infrastructure. These amounts are beyond the capacity of some municipalities and utilities to shoulder alone. Without additional investment in the nation's water and wastewater infrastructure, the environmental and public health gains made during the last three decades could be at risk.

WEF Position

The Water Environment Federation supports a three-pronged approach to solve the financial sustainability of infrastructure challenge facing water sector utilities: First, utilities must be well managed and appropriately funded to ensure long-term sustainability of collection, treatment and distribution systems; second, there must be a significant and continuing federal investment commitment; and, third, the general public and business community must play a larger role in ensuring that utilities continue to effectively serve their communities.

Well-Managed Utilities

Utilities must be well managed locally to ensure long-term sustainability of collection, treatment and distribution systems: The first line of defense in providing Americans the benefits of clean and safe water is ensuring our local water and wastewater utilities are well maintained and operated with sufficient local support. Specifically, WEF supports:

- Full cost-of-service pricing systems that encourage local communities to establish rates that reflect, to the maximum extent practicable, the system's true life-cycle costs, including debt service, and that can support long-term management needs. Full cost-of-service pricing also reflects the environmental and public health value of the water and wastewater services provided;
- Strong professional staff that are viewed as advocates for clean and safe water in the community and on the state and federal level. Utilities must have employee development and training programs that ensure utility staff possess the skills needed to manage, operate and maintain the utility using best practices;
- Water sector utilities should fully utilize the tools of the Effective Utility Management (EUM) program that establishes performance measures for excellence in utility management

- Sustainable management approaches, including asset management and environmental management systems, that proactively ensure long term viability of each component of the system while simultaneously ensuring compliance with local, state and federal environmental regulations;
- Long-term financial planning and structured resource prioritization to help ensure that utilities develop and allocate their available resources to most effectively deliver customer and environmental services;
- A culture of constant innovation and research into new technologies and management approaches that support best management practices, including conservation, efficiency and reuse; and a system to ensure transparency and public participation so the utility remains accountable to ratepayers and the general public.

There must be a significant and continuing federal investment: WEF recognizes that even if local utilities do all the above and are managing their systems using best practices, federal assistance in financing infrastructure costs will continue to be essential for many communities due to affordability issues. Congress must make a significant renewed commitment to help communities and regional watershed partnerships meet their obligations under the Clean Water Act and the Safe Drinking Water Act. Specifically, WEF supports:

Strengthening the Clean Water and Safe Drinking Water State Revolving Fund Programs (SRFs)

- Reauthorization of the Clean Water and Safe Drinking Water State Revolving Fund Programs (SRF) with a significant increase in appropriations to more closely reflect financing needs that exist;
- Improved administration of State Revolving Funds, that streamlines the application process, provides increased flexibility to States to determine, with public input, project eligibility and environmental compliance standards, and encourage innovative partnerships that bring diverse stakeholders together for more effective broad-based solutions; and reduces paperwork burdens on communities;
- Flexible forms of financing, made available by states on the basis of need, to assist communities that do not have the rate base to support conventional or SRF loan financing costs. These include extended loan terms, low and negative interest loans, loan forgiveness programs and grants. Communities in need often include low-income communities and small communities or those facing costly environmental challenges such as correction of CSO and SSO problems or meeting new TMDL and security requirements. More comprehensive affordability criteria should be developed for states to use in allocating SRF financing;
- A dedicated revenue source for the SRF could ensure that federal investment in water infrastructure is consistent and no longer solely depends on annual discretionary appropriations. .
- WEF believes that any dedicated SRF revenue source identified should be broad-based, related to clean and safe water, and should not impose a national tax or fee on local water and wastewater ratepayers. WEF is willing to work with Congress and other stakeholders to bolster SRFs by considering dedicated revenue sources and innovative financing. One possible dedicated revenue source is a water trust fund. An example of an innovative financing approach is a water-specific infrastructure bank.

Support for State Programs, Small Communities, Research, Asset Management, and Public Education -

- In addition to increased funding for the SRF, assuring infrastructure sustainability will require increased federal support for States to administer clean water programs, including federal support for watershed based approaches; federal support for technical assistance to small

communities; increased federal investment for research and development of cost-effective treatment and infrastructure technologies and asset management strategies that improve the life-cycle of wastewater treatment systems; and federal support for the development of a national program to educate the public about the benefits and economic importance of water and wastewater infrastructure.

The general public and the business community must play a larger role in ensuring clean and safe water. WEF supports strategies that encourage greater participation by the general public and the business community in maintaining the healthy operation of community water and wastewater treatment facilities. WEF believes that to ensure long term environmental stewardship of our water resources, all parts of society must be involved. Specifically, WEF supports:

- Public partnerships and cooperative relationships with the business community to develop innovative, cost-effective solutions to infrastructure sustainability. Public/private partnerships should not be restricted or hindered by tax laws, grant conditions or other federal requirements. Public-private partnership decisions should be made locally based on what local officials determine is most appropriate for preserving and enhancing the water environment;
- Elected officials and non-governmental organizations, including public health organizations, advocacy groups, business associations and other civic organizations, playing a leadership role in highlighting the importance of water infrastructure and continued investment in it;
- A continued commitment from WEF to continue public outreach among all stakeholders to increase the public's support for investment in infrastructure for clean, safe water.

WEF recognizes that no single solution addresses the full range of clean water infrastructure and related challenges. All levels of government and the private sector must share responsibility for effective, efficient, and fair solutions to protecting our nation's waters.

About the Water Environment Federation

Formed in 1928, the Water Environment Federation (WEF) is a not-for-profit technical and educational organization with 36,000 individual members and 75 affiliated Member Associations representing water quality professionals around the world. WEF and its Member Associations proudly work to achieve our mission of preserving and enhancing the global water environment.

Xylem Inc.

Gretchen W. McClain
President and Chief Executive Officer

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Tel. +1 914 323 5700 Fax +1 914 323 5800

March 29, 2012

The Honorable Bob Gibbs, Chairman
The Honorable Tim Bishop, Ranking Democrat
Subcommittee on Water Resources and Environment
Committee on Transportation and Infrastructure
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman Gibbs and Ranking Democrat Bishop:

I write to request that the following statement be made part of the formal record for the Subcommittee hearing entitled Review of Innovative Financing Approaches for Community Water Infrastructure Projects – Part II.

Xylem Inc., headquartered in Westchester County, New York is a leader in water quality and supply technology solutions to ensure sustainable and safe water supplies throughout the United States and the world. As a leader in developing water solutions in the developed and developing countries, we endorse the Subcommittee on Water Resources and Environment review of the need for a vibrant water infrastructure policy for the United States. Chairman Gibbs' draft proposal to develop sustainable funding mechanisms and Ranking Democrat Bishop's bill, H.R. 3145 fundamentally exhibit a common theme: a strong federal policy must be developed to meet the needs of the emerging challenges to water sustainability.

Since 1972, when the federal government made a historic commitment to address our water quality protection needs through passage of the Clean Water Act, more than $60 billion in federal grants assistance has been funded to protect water resources. With the advent of the State Revolving Loan Fund Program in 1987, more than $40 billion state capitalization grants have been made available to support to state and local governments to address point sources of pollution. During this same period of time, nonpoint sources of water quality pollution have become increasingly important to the priority to restore our water ecosystems and sustain them for future generations

Over the past several years, the federal commitment to the core water infrastructure assistance program has experienced significant reductions attributable to constraints on the federal budget. At the same time, federal mandates to address stormwater flows, nutrient loadings and emerging contaminants of concern have increased the already strained budgets of local communities that are striving to meet existing water infrastructure rehabilitation needs. With close to a trillion dollar gap in existing funding needs, a strong federal partnership, anchored by a meaningful program of assistance to meet the challenges of the twenty-first century, is vital to our public health and economic competitiveness

The Subcommittee has received testimony on the importance of providing the financial tools to support infrastructure planning, design and construction. In the course of this discussion, questions have been posed as to whether we as a nation can afford to continue the federal partnership.

In 2010, Xylem released the findings of a comprehensive review of the public's perception of the value of water. I enclose a summary of the study results with this statement. This study is useful in revealing the unqualified support for water infrastructure and the priority attached to the need to invest in water infrastructure once people are aware of the issue. The Xylem survey revealed that 95% of Americans value water infrastructure as "extremely important", eclipsing the priority for any other service the public receives. On the issue of infrastructure policy reform, a significant majority, 80%, indicates reform is necessary. From an economic perspective, 85% of voters and a similar percentage of businesses believe federal, state and local governments must invest in this infrastructure. Buttressing this view, a similar level of support exists that policymakers must invest more time and energy to address this crucial infrastructure need. And finally, our survey found that once they are made aware of the magnitude of the problem, Americans are prepared to support an increased investment through rate increases and governmental assistance. By any measure, our survey illustrated that broad and deep public and private sector support exists to modernize our water infrastructure grounded in a partnership with all levels of government.

The ability to address the water infrastructure funding gap will only be met through a robust and reliable program of multiple financing tools. This need exists because in some communities economic realities will require highly subsidized assistance such as principle forgiveness and negative interest subsidies. Other communities may require direct grants assistance. In some instances, the ability to develop public private partnerships may represent efficient mechanisms to construct necessary infrastructure that otherwise would be hindered by a community's lack of financial capability. Compliance with federal water quality mandates impose costs on industry that place additional costs for manufacturing and production of goods, creating competitive burdens with industries in other nations that subsidize compliance with water pollution control mandates. Federal assistance to industry and agricultural businesses is critical to ensure a more level playing field while improving our water quality.

With close to a trillion dollars in estimated needs over the next several decades for municipal projects alone, Xylem encourages the Subcommittee to approve legislation that will reinvigorate the federal partnership with state and local governments. Any program must have as its foundation the availability of multiple financing tools that can leverage public and private sources of capital.

We urge the Subcommittee to preserve the State Revolving Loan Fund Program (SRF) for drinking water and wastewater treatment systems. The SRF has served its intended purpose. Since 1987, the SRF has spurred more than $90 billion in investments. It should continue as a core element of the federal partnership. Any renewal of the SRF should focus on reducing "red tape" that makes it more expensive for communities to borrow from the SRF. A renewal should also provide for an adequate authorization of annual federal appropriations that will enhance the effort to close the funding gap. This is important because in many cases, the SRF is the only source of assistance that communities can rely upon based on their economic circumstances.

The SRF alone will not meet all the infrastructure needs along with the continuing growth of new water quality improvement mandates. In order to address the disparity between funding and need, innovative financing approaches need to be part of the funding equation. To this end, Xylem urges that any legislation the Subcommittee develops provide for:

- Renewal of Build America Bonds: These bonds were part of the American Recovery and Reinvestment Act and provided local communities with an effective and efficient source of capital that reduced the total project costs through reduced debt service.

- Elimination of the Private Activity Bonds State Volume Cap: Private Activity Bonds provide tax exempt funding of several specified infrastructure projects whether for public or private purposes. Under current law, a state volume cap limits the use of these bonds for water and wastewater infrastructure and the use must compete against other purposes such as housing. Given the fact that other environmental infrastructure activities are exempt from the cap, water and wastewater uses should also be exempt. Estimates of new capital formation by this one action are between $1billion and $2 billion annually. The impact on the Federal Treasury has been scored as "negligible", avoiding federal deficit concerns.

- Water Infrastructure Financing and Innovation Act (WIFIA): WIFIA, modeled after the transportation-oriented TIFIA program, offers an attractive method to leverage federal seed funding through loan guarantees and low interest loans. WIFIA has been advocated as an alternative financing tool to funds large projects in excess of $20 million. WIFIA deserves consideration as a financing option for such capital-intensive water projects. However, we recommend that WIFIA should serve as an alternative form of financing and not a substitute for the SRF program as some have intimated.

- Infrastructure Bank: The President's Fiscal Year 2013 Budget seeks funding for the creation of a National Infrastructure Bank. As proposed the bank concept holds promise. A true bank concept would allow for innovative financing arrangements that could leverage the federal contributions. We note that the President's proposal would pit worthy public infrastructure projects against each other for funding consideration. Should a bank policy be debated, we urge that categories of eligibilities be established to ensure that trade-offs between highways and water needs, for example, are avoided.

- Public Private Partnerships: The availability of financing tools for public private partnerships may serve an important purpose to enhance collaboration between public agencies and commercial and industrial entities in their service areas. Additionally, partnerships designed to enhance contracted service delivery may provide benefits to ratepayers in reduced rates for services.

Over the past several years, Xylem has developed a number of new technologies that address the critical role of energy in moving and treating water and wastewater. Our efforts include the design of highly efficient treatment technologies that reduce operating and maintenance costs. We believe that an important element of any policy to close the funding gap should provide incentives for the incorporation of such technologies into an

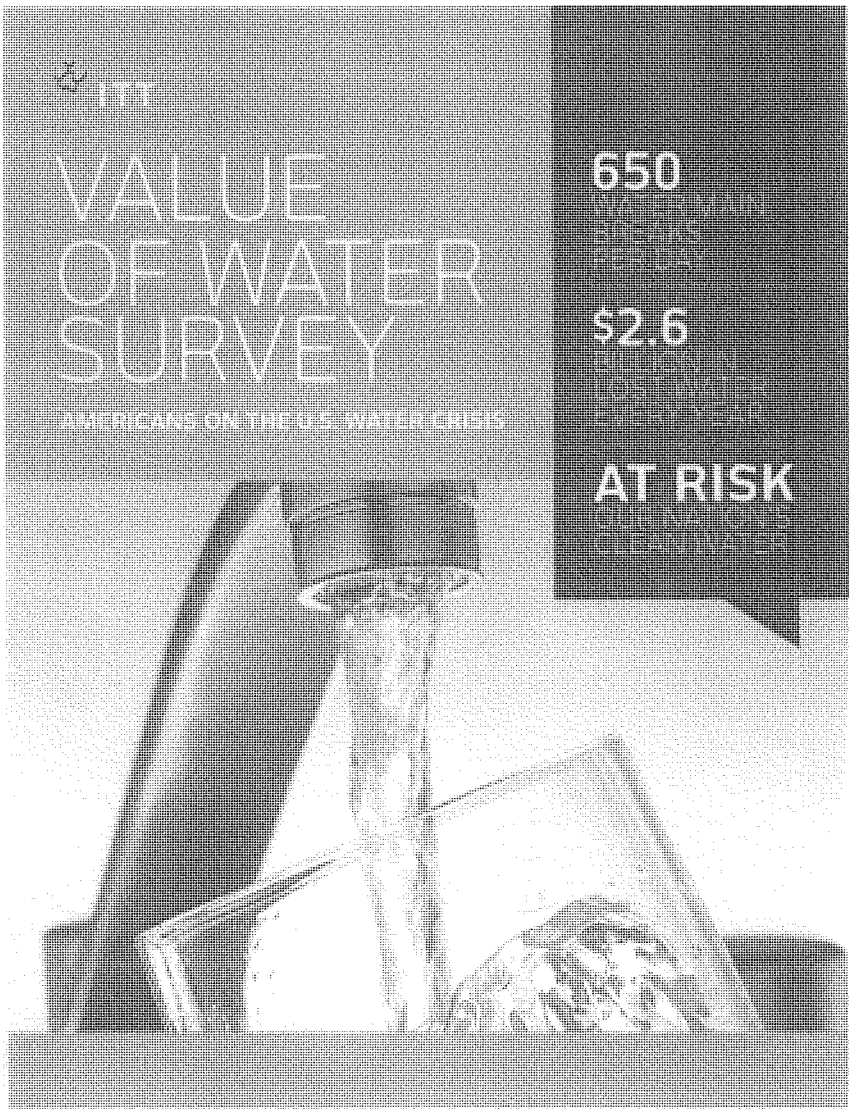
infrastructure project. To this end, we suggest that additional subsidies be provided to projects employing energy efficient technologies.

Our nation has made important, substantive advances to restore the nation's lakes, rivers, streams and coastal waterways since the enactment of the Clean Water Act. These successes are largely attributable to federal leadership in supporting state and local governments in the construction of water and wastewater treatment systems. The challenges to maintain this progress have become increasingly complex and expensive since 1972. The ability to meet the myriad of challenges demands a continued federal presence that allows multiple financing tools to address the unique needs of each community.

We look forward to working with the Subcommittee on this important policy matter.

Sincerely,

Enclosure: Summary of Xylem Inc. Value of Water Survey


VALUE
OF WATER
SURVEY
650
$2.6
AT RISK

AN UNDERGROUND CRISIS

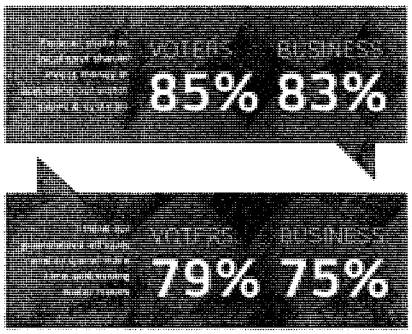
WATER: A VALUED RESOURCE, TAKEN FOR GRANTED...

American voters say that water is the most important service they receive, ahead of electricity, heat, the Internet and cell phones. Among businesses, it ranks second only to electricity.

Yet, because clean water is so readily accessible, many take it for granted. Close to half of industrial and agricultural businesses (43%) in the U.S. say they know little or nothing about water or how much they pay. The vast majority of voters (68%) and businesses (78%) say that they "don't really worry about the water that comes out of the tap because it is generally clean and unpolluted."

"Water pipes and systems in America are crumbling and approaching a state of crisis."

—29% OF U.S. VOTERS

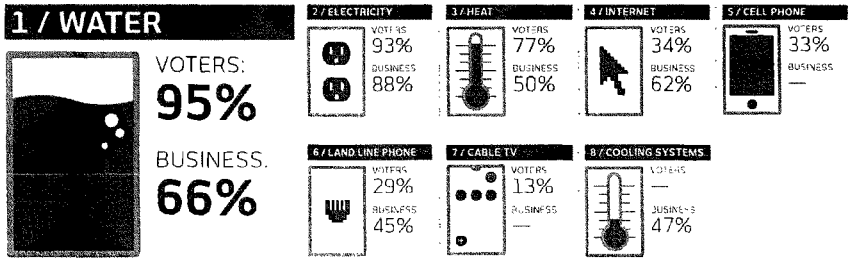


...BUT AMERICANS ARE STILL WORRIED

Because clean water is taken for granted, it is rarely top of mind. But this does not preclude concern about the issue. When asked, U.S. voters and businesses do express concern about the state of the nation's water infrastructure and water supply, saying major reform is needed. In fact, they believe our cities' antiquated, deteriorating pipes to be in a state of disrepair approaching crisis.

They also recognize that water is a finite resource, agreeing overwhelmingly that Americans waste too much water and need to conserve more. Most American voters (77%) believe that problems with the nation's water infrastructure system affect them personally.

U.S. VOTERS RANK WATER AS MOST IMPORTANT SERVICE



A SHARED RESPONSIBILITY

VOTERS AND BUSINESSES ARE WILLING TO DO THEIR PART, BUT GOVERNMENT MUST LEAD

Despite tough economic times, the voters and businesses surveyed indicate that addressing America's water problems should be a shared responsibility between citizens and their government – federal, state and local. The vast majority of voters (85%) and businesses (83%) say that either federal, state or local governments should invest money in upgrading our water pipes and systems. And they are willing to do their part: close to two-thirds of registered American voters are willing to pay more each month to upgrade our water systems and ensure long-term access to clean water.

This sentiment is shared across regions, gender, age and political affiliation, signaling that even as the nation remains divided on many issues, working together for clean water is something everyone can agree on.

Voters are willing to pay on average $6.20 more per month. If we took them up on their offer, the United States could invest about $5.4 billion more per year to maintain our public drinking water systems, more than four times the FY10 investment through the federal Drinking Water State Revolving Fund, the main vessel for federal water infrastructure funding.

PEOPLE WANT GOVERNMENT TO LEAD THE SOLUTIONS

Accountable for fixing water infrastructure problems...

	VOTERS	BUSINESS
Government	87%	89%
Local & municipal govts	36%	50%
State govts	26%	22%
Federal govts	25%	17%
Business & industry	5%	6%
All of the above	2%	2%
Everyone is accountable	0.3%	0.4%
Don't know	4%	2%

THE MAJORITY OF BOTH VOTERS AND BUSINESSES ARE WILLING TO PAY MORE

63% VOTERS

57% BUSINESS

TWO-THIRDS OF AMERICAN VOTERS ARE WILLING TO PAY AN AVERAGE OF $6.20 MORE PER MONTH

$6.20 AVERAGE AMOUNT VOTERS ARE WILLING TO PAY MORE, PER MONTH

AVERAGE PERCENTAGE INCREASE OVER CURRENT WATER BILL **11%**

An increase of only 11% by 63% of American households alone would lead to increased investment in our nation's water infrastructure by more than $5 billion per year*

Of the 57% of industrial and agricultural businesses willing to pay more now, the average acceptable increase is 7%

*2010 U.S. CENSUS BUREAU PROJECTIONS: 114,200,000 U.S. HOUSEHOLDS

WATER IN AMERICA

THE STATE OF OUR NATION'S WATER INFRASTRUCTURE

If a silver lining exists to the economic crisis, it is the attention Americans have begun to pay to our nation's infrastructure. President Obama's $50 billion plan outlined a range of fixes, including the expansion of roads, railways, and runways. But this welcome spotlight on infrastructure has one important omission: water.

Every day in America, 650 water mains break: 240,000 every year, one every two minutes. By one U.S. Geological Survey estimate, the value of lost water from such breaks is $2.6 billion annually. And that excludes the expense of repairs, traffic delays and lost business.

So what's the solution? The answer is both simple and complex: America urgently needs to increase investment in water infrastructure. At the current rate of investment, the U.S. EPA calculates that the funding gap could grow to as much as $224 billion by 2022.

American voters and businesses alike agree that fixing our water infrastructure is a priority. More than eight in 10 registered voters say government should increase investment in upgrading our water pipes and systems. And they say government—state and municipal as well as federal—must lead the search for solutions. But they are also happy to do their part: 63% of voters and 57% of the nation's industrial and agricultural businesses are willing to pay more each month in their water bills to ensure long-term access to clean water.

We should take them up on their offer: if every American household paid an average of just 11 percent more per month—or about the cost of three bottles of water—the United States could invest about $5.4 billion more per year to maintain our drinking water systems, more than four times the current investment through the Drinking Water State Revolving Fund, the main vessel for federal water infrastructure funding.

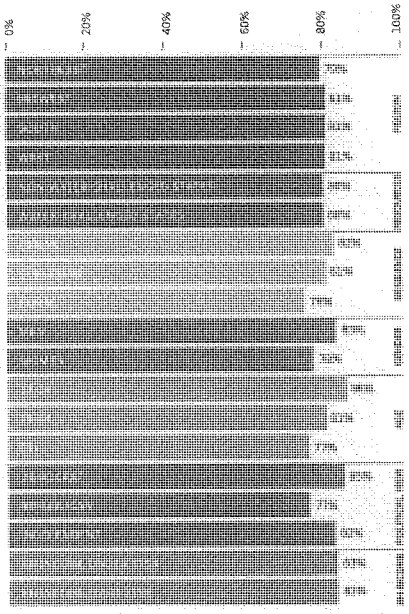
Solving our nation's water woes is a shared responsibility. Government at all levels must institute sound water policies that close the funding gap, promote conservation and help educate the public. The private sector must also raise awareness of the issue, and reduce usage and consumption. And Americans must understand that a steady supply of clean drinking water comes at price.

The ITT Value of Water Survey demonstrates we have consensus on this. It is now up to us to act.

Gretchen McClain
President, ITT Fluid and Motion Control

DESIRE FOR REFORM IS EXPRESSED ACROSS DEMOGRAPHIC GROUPS

Reform of the nation's water infrastructure is needed



ABOUT THE VALUE OF WATER

ITT conducted a telephone study of approximately 1,000 American voters age 18 years and older. A second parallel telephone study was conducted among 500 businesses (encompassing facilities or operations managers at industrial and agricultural companies).

The national sample of voters is representative of the 2006 U.S. voting population on gender, age, region, income, education, geography and ethnicity. The margins of error at the 95% confidence level are +/- 3.1% for the voter sample, and +/- 4.26% for the business sample. Both the voter and business studies were approximately 20 minutes in duration, utilizing computer-assisted telephone interviewing (CATI) technology. Both studies were conducted between August 6 and September 3, 2010.

ABOUT ITT

ITT Corporation is a high-technology engineering and manufacturing company operating on all seven continents in three vital markets: water and fluids management, global defense and security, and motion and flow control. With a heritage of innovation, ITT partners with its customers to deliver extraordinary solutions that create more livable environments, provide protection and safety and connect our world. Headquartered in White Plains, N.Y., the company reported 2009 revenue of $10.9 billion.

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Written Statement of the Rural Community Assistance Partnership

Robert Stewart
Executive Director

Ari Neumann
Policy Director

Submitted to the House of Representatives
Subcommittee on Water Resources and Environment
Committee on Transportation and Infrastructure

March 27, 2012

The Rural Community Assistance Partnership (RCAP) thanks the Subcommittee on Water Resources and Environment for the opportunity to submit this statement for today's hearing titled "Review of Innovative Financing Approaches for Community Water Infrastructure Projects." We would like to thank Chairman Gibbs and Ranking Member Bishop for holding hearings on innovative financing mechanisms to address the ever-growing gap between the needs of local water and sewer systems and the funds available for water and wastewater infrastructure improvements.

RCAP is a 501(c)(3) non-profit organization dedicated to improving the quality of life in rural communities by ensuring that rural residents have access to safe, clean drinking water and sanitary wastewater services. For nearly 40 years, we have worked directly with rural communities and local elected officials to improve the technical, managerial, and financial capacity of small water and sewer system boards and operators. RCAP operates in more than 2,000 small, rural communities each year throughout the United States and its territories. Most communities RCAP assists are economically disadvantaged and have a population under 2,500.

Small systems nationwide comprise approximately 85% of all public drinking water systems[1] and 70% of public wastewater facilities.[2] The most recent needs surveys by the U.S. Environmental Protection Agency estimate the funding needs in small systems and rural areas at $59.4 billion for drinking water[3] and nearly $70 billion for wastewater[4] over the next two decades. Small communities face unique challenges in developing, upgrading, and operating their water and wastewater facilities. For example, small utilities must spread their capital and operating costs among fewer customers – including large commercial, industrial, and institutional users – making it impossible to achieve the economies of scale found in larger systems.

Due to the funding challenges posed by the limited customer bases served by rural utilities, many rely on federal loan and grant programs to finance the water infrastructure upgrades that are necessary to maintain compliance with state and federal regulations and provide reliable service to their customers. The work of this Subcommittee is therefore critical to ensuring that rural communities are able to supply safe and affordable water and sewer services to their residents, and we are pleased to present to the Subcommittee our views on innovative water and wastewater financing mechanisms and their potential impact on rural communities.

WIFIA

RCAP believes that the creation of innovative financing mechanisms and increased funding at all levels of government are essential to the long-term well-being of

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[1] American Water Works Association. *Buried No Longer: Confronting America's Water Infrastructure Challenge* (2012) at 5.

[2] U.S. Environmental Protection Agency. *2008 Clean Watersheds Needs Survey (CWNS)* at 2-21.

[3] U.S. Environmental Protection Agency. *Drinking Water Infrastructure Needs Survey and Assessment*. 4th Report to Congress (2009) at ii.

[4] *CWNS*, supra at 2 (includes $22.7 billion for small-system centralized wastewater, $22.8 billion for non-point source pollution control, and $23.9 billion for decentralized wastewater needs).

our nation's rural water infrastructure. We are pleased that the Subcommittee is considering new ways to attract investment to this vital sector of our economy. However, we are concerned about the potential that a TIFIA-like program for water infrastructure (WIFIA), while providing valuable resources to large, urban water and sewer systems, will not be accessible to rural water and sewer systems.

In particular, we are concerned with the minimum eligibility threshold of $20 million for a project to qualify for financing under the WIFIA program. Few, if any, rural communities will undertake projects of that magnitude. The 817 wastewater treatment facilities projected to be constructed in rural communities by the 2008 Clean Watersheds Needs Survey cost, on average, less than $4 million. Even regional projects serving many small towns in rural areas infrequently require upgrades or repairs of more than $20 million. In fact, in fiscal year 2011, 19 states received less than $20 million in total loan and grant funding for the whole state from the Water and Environment Programs at the US Department of Agriculture's Rural Utilities Service.[5] Projects at individual rural facilities in those states are thus almost assuredly excluded by WIFIA's eligibility threshold.

Data published in the 2010 Annual Report of the Ohio Water Development Authority (OWDA) further illustrate the inability of most rural water systems to meet the $20 million floor. Of the 151 water and wastewater construction projects financed by the OWDA in 2010, there are only five in which the OWDA's investment exceeded $20 million, and all are in urban areas: one in Columbus, two in Hamilton County (Cincinnati), and two in Cuyahoga County (Cleveland).[6] Although there are many regional systems in Ohio serving multiple rural communities, very few will meet WIFIA's $20 million minimum.

Simply put, the WIFIA proposal included in Chairman Gibbs's draft water infrastructure finance bill will primarily benefit large, urban water and sewer systems. We recognize that large systems face many difficulties in obtaining affordable financing for needed upgrades and to aid in compliance efforts, and WIFIA may be a valuable tool to address those needs. However, for most rural water and sewer systems, the proposed WIFIA will not increase the pool of available funds for improvements.

However, the WIFIA concept could easily be modified to make it more beneficial to rural communities. The proposal presented by Mr. Fangmann, on behalf of the American Council of Engineering Companies and the Water Infrastructure Network, in which WIFIA loans directly to the existing State Revolving Funds (SRFs) rather than to individual projects, allows both rural and urban water and sewer systems to access the program. In addition, loaning the funds to the SRFs would allow state and local leaders to decide what is most needed in their states. With this slight modification, WIFIA could better serve the needs of rural water and sewer systems.

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[5] U.S. Department of Agriculture. Rural Development. *USDA Rural Development 2011 Progress Report*.
[6] Ohio Water Development Authority. *2010 Annual Report*.

Trust Fund

Even if the WIFIA proposal is modified to lend to the SRFs rather than individual projects, it will still require annual appropriations to ensure its continued vitality. RCAP continues to believe that long-term, dedicated funding for water infrastructure must be a part of the solution to bridge our funding gap. A dedicated water trust fund would provide a stable source of funding that could be leveraged by a WIFIA program to provide billions of dollars to the SRFs to invest in water and sewer infrastructure projects in both rural and urban areas.

Further, a dedicated trust fund would provide stability to the SRFs and local communities that would allow them to anticipate future levels of federal funding and engage in long-term planning for financing needed improvements. State and local officials could work together to set priority lists and provide utilities with specific timelines for future funds.

For many small towns, the loss of one factory or warehouse could mean the loss of most of the jobs in the local economy. In order to keep those employers from leaving for urban areas or moving overseas, communities must be able demonstrate that they can meet the employers' basic needs, like affordable water and sewer services. The ability to tell these industries with certainty when infrastructure upgrades will be made and how the community will continue to provide reliable utility services will greatly enhance the ability of many rural towns to retain industries and jobs.

Water is the last major infrastructure category that lacks a dedicated trust fund. RCAP remains committed to working with this Subcommittee to identify viable funding streams to support the creation of a National Clean Water Trust Fund.

Conclusion

Our nation is facing a severe water infrastructure funding shortfall. Rural communities, with limited customer bases and aging systems, face tremendous challenges in their efforts to provide their residents with safe drinking water and quality wastewater service. More than a million rural Americans still live without access to these basic services.

RCAP commends the Subcommittee's commitment to develop innovative water infrastructure financing mechanisms on a bipartisan basis to help resolve this crisis. We look forward to working with Chairman Gibbs, Ranking Member Bishop, and the rest of this Subcommittee to continue to look for innovative solutions to address rural America's water and wastewater infrastructure needs.

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Statement of

The American Society of Civil Engineers

Before the Subcommittee on Water Resources and Environment

Committee on Transportation and Infrastructure

U.S. House of Representatives

on

Innovative Financing Approaches for Community Water Infrastructure Projects—Part II

March 21, 2012

Mr. Chairman, Congressman Bishop, and Members of the Subcommittee:

The American Society of Civil Engineers (ASCE) is pleased to provide this statement for the record of the hearing of March 21, 2012, examining innovative financing approaches for community water infrastructure projects. This is the second of two hearings held by the Subcommittee this year on new options for bolstering investments in critical wastewater collection and treatment systems.

Every four years, ASCE publishes the *Report Card for America's Infrastructure*, which grades the current state of 15 national infrastructure categories on a scale of A through F. In 2009, our most recent *Report Card* gave the nation's wastewater and drinking-water infrastructure systems a grade of a D-.

More recently, ASCE has undertaken a series of economic studies to identify the long-term consequences to the nation's economy due to our deteriorating infrastructure.

Our most recent report in December 2011, *Failure to Act: the Economic Impact of Current Investment Trends in Water and Wastewater Treatment Infrastructure,* revealed the impact of the deteriorating condition of the nation's wastewater and drinking-water infrastructure on America's economic performance. In other words, how does that D- for water treatment and transmission affect America's economic future? The answer is sobering.

I. Investment Shortfalls Total Billions of Dollars

Our report, *Failure to Act: the Economic Impact of Current Investment Trends in Water and Wastewater Treatment Infrastructure*, concluded that by 2020 the gap between needs and anticipated funding for wastewater and drinking-water infrastructure will be $84 billion. [1]

That $84 billion funding gap may lead to $147 billion in increased costs for businesses and a further $59 billion for households. In the worst case, the U.S. will lose almost 700,000 jobs by 2020. By 2020, the average annual effect on the U.S. economy is expected to be $416 billion in lost GDP. Putting the problem in terms we can all understand, the average family household budget will increase about $900 annually to cover the cost of increased water rates and lost income.

Particularly in the country's older cities, much of the drinking-water infrastructure is old and in need of replacement. Failures in drinking-water infrastructure can result in water disruptions, impediments to emergency response,

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[1] The full report is available at www.asce.org/failuretoact

and damage to other types of essential infrastructure. In extreme situations caused by failing infrastructure or drought, water shortages may result in unsanitary conditions, increasing the likelihood of public health issues.

Water infrastructure in the U.S. is clearly aging, and investment is not able to keep up with the need. Our findings indicate that investment needs will continue to escalate. Even with the increased use of sustainable practices and cost-effective development of other efficiency methods, the growing gap between capital needs to maintain drinking-water and wastewater treatment infrastructure and investments to meet those needs will likely result in unreliable water service and inadequate wastewater treatment.

Our analysis assumes that the mounting costs to businesses and households will result in a number of scenarios or choices:

- Doing nothing and living with water shortages, and higher rates (rationing though price increases); major outlays by businesses and households, including expenditures incurred by moving to where infrastructure is still reliable, purchasing and installing equipment to conserve water or recycle water, and increasing reliance on self-supplied water and wastewater treatment (i.e., installing individual wells and septic waste systems when municipal facilities and services are not available options).
- Responses to failing public infrastructure will vary by location, size, household characteristics, and type of business. Expenditures due to moving, or from installing and operating new capital equipment for "self-supply," are estimated for households, commercial establishments, and manufacturers.
- Movement across regional boundaries and relocation of businesses outside of the U.S. is certainly a response that may be triggered by decreasing reliability of public water and sewer systems.
- Households and businesses that do not self-supply are assumed to absorb the higher costs that are a consequence of disruptions in water delivery and wastewater treatment due to worsening infrastructure. The assumption for this category is that these households and businesses will pay the $84 billion associated with the 2020 capital gap in terms of higher rate costs over and above the baseline projected rates for water and wastewater treatment.

II. What Can Be Done?

Some of these effects can be mitigated if American households and businesses adopt sustainable practices. Without sustainable practices, the economic effects outlined above will continue to escalate.

But, if households and businesses adopt sustainability practices like improved efficiency through process or equipment changes, water reclamation, or

green infrastructure to address wet weather management as water rates continue to rise, negative long-term economic effects can be mitigated.

If sustainability measures are broadly adopted, for example, rather than job losses possibly reaching 1.4 million by 2040, losses would peak at between 800,000 and 830,000 in 2030, and drop to 615,000 by 2040. Sustainability measures alone won't solve the problem, but they're a good first step. And an additional $84 billion in investments by 2020 will amount to an annualized cost of approximately $9.3 billion.

Funding to close the gap can come from multiple sources. Federal grants and loans have provided more than $88 billion in federal assistance to building water infrastructure since 1973. Despite recent federal deficits, infrastructure spending can both create short-term construction jobs and improve the foundation upon which the nation's economy rests.

In the area of direct financial assistance, ASCE supports enactment of a "Water Infrastructure Finance and Innovation Act" (WIFIA) that would be modeled in the program for major surface transportation projects enacted in 1998. The Act would operate through the U.S. Treasury and provide credit assistance for qualified projects of regional and national significance. The projects eligible under the WIFIA would have to satisfy the state's "intended use plan" required by the Clean Water Act for projects receiving SRF monies.[2]

The WIFIA credit program would be designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital. The federal government would be a minority investor, providing anywhere from a 33 percent to 50 percent of a project's cost. States and localities would borrow from the State Revolving Loan Fund (SRF) account as now; they would repay the loan to the SRF authority, which in turn would repay the Treasury

Financing would be in the form of secured (direct) Treasury loans—the most likely form of assistance—loan guarantees, or standby lines of credit. Loans would be repaid over 35 years from the completion of the project. Interest rates would be fixed and follow the equivalent Treasury rates (currently at 1.95 percent for a 10-year Treasury security constant maturity).

The WIFIA program would assist sewage treatment projects having their

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[2] "Each State shall annually prepare a plan identifying the intended uses of the amounts available to its water pollution control revolving fund." 33 U.S.C. § 1386 (c).

own revenue streams from the federal trust fund, user fees, local ratepayers, or other revenue sources, all of which can help attract substantial private capital with a limited federal investment. This program offers the sponsors of large projects a new tool to leverage limited federal resources, stimulate additional investment in our nation's infrastructure by as much as $15 billion annually, and encourage greater private sector participation in meeting the nation's clean water needs.

Yet federal funding is not the only answer; since the mid-1970s, money from local and state governments has represented an increasing percentage of public drinking-water and wastewater investment—rising to more than 95 percent in recent years. Because some water systems are now privatized (approximately 10 percent of the 170,000 public-serving drinking-water systems), private capital may become increasingly important.

But whether a system is government owned or private, households and businesses still ultimately foot the bill; thus, setting rates at levels sufficient to maintain and upgrade infrastructure is critical. If rates increase too much, however, more low-income residents would face financial hardship.

ASCE also sees potential to ease the federal funding burden through other mechanisms such as through:

1) Federal legislation to eliminate the state cap on private activity bonds for water infrastructure projects to bring an estimated $6 billion to $7 billion annually in new private financing to bear on the problem.

2) Legislation to allow Public Private Partnerships (PPPs) as one of many methods of financing infrastructure improvements. ASCE supports the use of PPPs only when the public interest is protected. Any public revenue derived from PPPs must be dedicated exclusively to comparable infrastructure facilities in the state or locality where the project is based.

3) Federal legislation to establish a National Infrastructure Bank. Such a bank would leverage public funds with private dollars to invest in infrastructure—transportation, environment, and energy projects of significance—that could play a significant role in improving the nation's infrastructure.

4) Congressional efforts to craft legislation to establish a dedicated source of revenues for wastewater and drinking-water projects that would provide a stable, long-term basis for financing for these critical systems.

Finally, the federal government cannot be the bank of last resort. Individual water utilities must consider the possibility of increasing the price of water to local

ratepayers. Water must be appropriately priced to ensure investments can rebuild the infrastructure.

III. Conclusion

It is important to remember that, unless current trends are reversed, the performance of the U.S. economy will continue to suffer.

- Business productivity will go down. As water rates rise, costs to businesses will go up, and Gross Domestic Product will have dropped by a cumulative total of $416 billion below its anticipated level.

- America will lose jobs. The U.S. economy is predicted to lose 700,000 jobs by 2020 due to inadequate water treatment and delivery.

- These effects will be widely felt. Job losses will occur throughout the economy, with almost 500,000 jobs threatened in sectors traditionally employing people without extensive education and 184,000 jobs in knowledge-based sectors.

- Cumulatively, families will earn $541 billion less in 2020 than they earned in 2011. By 2020, this means that an individual household will be earning $806 less a year.

- U.S. exports will fall by a cumulative total of approximately $6 billion by 2020, accounting for about four percent of the total decrease in business sales estimated for that year. The greatest losses are in the technology and manufacturing sectors, including aerospace, instruments, chemicals and drugs, as well as associated finance and professional services.

There are multiple ways to prevent these negative consequences described in this report. Possible preventive measures include spending more on existing technologies, investing to develop and then implement new technologies, and changing patterns in where and how we live.

All these solutions involve costs. Separately or in combination, these solutions will require action at the national, regional, and private levels, and will not occur automatically.

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